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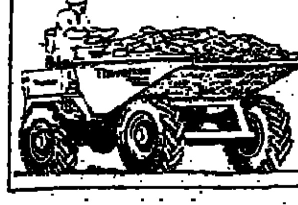

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NEWS SUMMARY

GENERAL

Eighty die in Beirut blast

At least 80 people were killed and a similar number injured when a massive explosion destroyed the Beirut headquarters of a pro-Iraqi Palestinian guerrilla group.

The Palestine Liberation Front, a radical group based in the eight-storey building, did not blame the attack on any specific group but it has been involved in increasingly bloody battles with members of Yasser Arafat's Palestine Liberation Organisation.

Hospital authorities said that they expected more deaths as a result of the blast.

Prince in jet fire drama

Prince Philip was aboard a scheduled jumbo jet whose undercarriage caught fire at Calgary after two abortive take-off attempts. During the second run four tyres burst. No one was hurt and the Prince arrived in London last night on a later flight.

Boycott threat

As the Commonwealth Games ended in Edmonton, Geoff Capes, shot putt gold medallist, said that he and other British athletes might boycott the European Games in Prague this month as a protest at the continuing use of banned drugs by Eastern Bloc rivals. Page 6

12-hour delays

Glasgow was the worst-hit UK airport with delays of up to 12 hours as French air traffic controllers continued their work to rule.

Settlement plan

Israel's Government has admitted that it plans to build five new settlements in the Jordan Valley on the West Bank. The decision, taken some weeks ago, was disclosed after Opposition complaints about secrecy. Page 2
Carter's gamble, Page 37

Stonehouse ill

John Stonehouse, former Labour Minister serving a seven-year sentence for fraud, theft and deception, collapsed in Blundeston Prison, Suffolk, and was taken to an outside hospital. He suffered a heart attack last year.

Conclave 'short'

An aide to Cardinal Hume said after Pope Paul's funeral in Rome that it was hoped the conclave to elect a successor would be short. Mgr. George Leonard said that the 113 cardinals hoped to have a clear idea whom they wanted before the conclave began. Funeral, Page 2

Forest blaze

A spark from a lawn mower started a forest fire at Cazadero, California, which destroyed 35 homes and caravans, plus $13m worth of timber.

Record run

The West End show No Sex Please, We're British will become the longest-running comedy in the history of the British theatre when it reaches its 3,000th performance on Thursday. Box office takings have passed £3m.

Briefly

Iran spread martial law to cover three more towns in the Isfahan area amid fresh disturbances.

Anti-Nazi League plans a demonstration on Sunday to make Brick Lane, east London, a "no go area" for the National Front.

Premium Bond £50,000 prize goes to Essex holder of Bond 7PF 059711.

Ronnie Peterson of Sweden won the Austrian Grand Prix in a Lotus.

Translation of Shakespeare's complete works has been published in China for the first time.

BUSINESS

Vauxhall talks resume today

● NEGOTIATIONS resume today to try to solve the dispute at Vauxhall's Ellesmere Port plant, Merseyside, which threatens to dislocate output throughout the company's factories.

The Merseyside plant will not reopen this morning after its three-week holiday shutdown because of a strike by 3,000 TGWU workers. A further 5,000 AUEW workers are being laid off this morning.

BL Cars faces a challenge from unofficial leaders of its 14,000 craft workers today. The craft committee is urging a one-day stoppage for improved differentials and separate bargaining rights.
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● OFFICIAL confirmation that the year-long decline in the annual rate of retail price inflation has ended should come this week. Any acceleration in the next few months is expected to be slight. Back Page

● GOVERNMENT may set temporary inflation accounting standards for the public sector if the proposals of the Inflation Accounting Steering Group (Morpeth Group) are delayed much longer.
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● CONCERN is being expressed in the aerospace industry at the way the Government is seeking to pass on to the nationalised British Aerospace the financial responsibility for civil aircraft research. Back Page

● MANAGERS of the proposed $1bn loan to Nigeria hope that the international banking tangle which has arisen over the loan will be sorted out this week.
Back Page

● FRENCH jobless total reached a record high of 1.234m (seasonally adjusted) in July—the first time the figure has passed 1.2m and marking an increase of more than one-third in two years. Page 2

EEC imports 'hit vehicle makers'

● UK VEHICLE makers have been heavily hit by EEC imports in their home market during the past few years without gaining any comparable benefit from export sales to the Community, a survey of the British motor industry concludes. Page 3

● DOCKYARD workers, whose sanctions in support of a pay claim have disrupted naval bases, will be advised today to suspend industrial action while they consider a new wage offer. Page 3

● BRITISH Insurance Association is asking member-companies to review their procedures for settling claims on householder insurance policies. Page 3

● ARTIFICIAL tax-eliminating schemes are continuing to be promoted in spite of the passing of retrospective legislation in the 1978 Finance Act, which banned the "commodity carry" move. Page 3

● CO-OP is cutting instant coffee prices from today. It hopes to hold them until at least Sept. 2. The move is expected to increase pressure to reduce prices of other main brands.

● COMPANIES in financial difficulties should be able to apply to court for a moratorium, the Consultative Committee of Accountancy Bodies says. But it should apply only where reasonable chances of recovery exist. Page 38

● BRAZIL'S foreign debt will reach a record $40bn by the end of this year, the Finance Minister said. Page 39

● STAR OFFSHORE Services made pre-tax profit of £1.9m (£1.5m) on turnover of £12.9m (£9.4m) for last year.

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Japanese leaders seek to triple emergency imports

BY ROBERT WOOD, TOKYO, AUGUST 13

A new plan aimed at tripling the size of Japan's "emergency imports" programme was disclosed here during the weekend by two of the country's most important economic leaders.

Mr Toshio Komoto, Minister for International Trade and Industry, and Mr. Kiichi Miyazawa, Director of the Economic Planning Agency, have devised a scheme for special imports of fuels and equipment worth $12.5bn during the fiscal year ending next March 31.

To date, Japan has talked in terms of $4bn in emergency imports. If the new programme succeeded it might more than halve Japan's current-account surplus.

Private agencies predict that Japan's current-accounts surplus, excluding the emergency imports, might total $20bn.

The emergency imports programme is separate from Japan's conventional efforts to increase its purchases from abroad. It consists largely of accelerated purchases of products that would ordinarily be imported later.

Apart from fuels, embracing enriched uranium and liquefied natural gas, other items in the scheme include ships, aircraft and industrial equipment. Some goods would be imported on paper only. Ships, for example, would be bought from foreign companies that have been chartering them to the Japanese, while aircraft and some industrial equipment would be bought mainly for leasing to third countries.

The scheme has yet to be approved by the Government. None of the emergency imports is thought likely to alter the structural long-term imbalance in Japan's trade and some purchases might eventually increase imports. The programme is a short-term expedient to control the surplus immediately and so give the Government-encouraged structural changes time to work.

In a related decision, the two Ministers agreed on Saturday to encourage Export-Import Bank loans for natural-resource development projects abroad. The loans will encourage outflow of capital, though there is no estimate yet of the amount.

Pressure

The emergency imports and the natural-resource investments will be almost entirely by the private sector, encouraged by favourable Government financing terms and other incentives.

The largest item is fuels, imported by Japan's electric power companies. Those companies are especially sensitive to Government pressure now because Japan is debating whether to force them to lower their rates in response to lower fuel prices, which the higher yen is bringing.

Mr. Komoto has opposed the rate cuts largely because the power companies are co-operating with emergency imports.

Under the plan Mr. Miyazawa and Mr. Komoto agreed yesterday, the goal for utilities' special purchases of uranium ore and enriched uranium, and advanced payments for liquefied natural gas, is increased from $1.12bn to $4bn.

The goal for purchases of ships from foreign charterers is increased from $600m to $2.8bn. Japanese companies have used foreign charterers largely because foreign flags allow them to employ low-wage foreign seamen. To reach the new goal for emergency ships imports, the Japanese will have to find a way to allow foreign seamen to be employed on Japanese-owned ships.

It had been estimated that meeting the $800m ship purchase goal would involve buying 36 chartered vessels. Meeting the new goal will probably require "purchasing" most of the Japanese-operated flag-of-convenience fleet. But, of course, many of those ships are already owned by the Japanese through overseas subsidiary companies.

Mr. Komoto and Mr. Miyazawa agreed to increase the goal for purchases of foreign equipment for leasing to third countries to $1.3bn by adding several hundred million dollars' worth of industrial plant barges to the $800m in aircraft purchases that had already been planned.

Tanker owners fear spot trade boom may be short

BY IAN HARGREAVES

OIL TANKER owners hope that this week will see the best spot trading conditions for their ships for more than three years, but fear that the boom may end as suddenly as it began.

Owners and brokers were surprised last week at threat arising of a scramble for tanker capacity in virtually every oil-loading area of the world.

This transformed a chronically depressed charterers' market into an owners' market and pushed rates from worldscale 28 in WS 37.5 for very large crude carriers (VLCCs) loading in the Gulf within the space of three days.

Explanations for this first surge of life in the tanker market since the 1974 oil crisis included rumours of a renewed Arab oil embargo to threat against the U.S. and others, should next month's Middle East peace summit prove unsuccessful.

But the most likely stimulant to oil companies' chartering activities was the normal seasonal fear of a decision by the Organisation of Petroleum Exporting Countries to raise oil prices from the end of the year.

There has been much talk recently of the Arab States abandoning the U.S. dollar as the main oil trading currency—a change which would also have a rapid effect on crude oil prices.

Oil companies are reacting earlier than usual to the price rise factor because there have been for some time suggestions within the organisation that oil loadings may be restricted for a period before the price increase to prevent stocking-up.

Anxieties

This year, there is also more oil storage available in the U.S. than last year giving the oil companies more flexibility in managing the movement of crude from the Gulf to their U.S. terminals.

Beneath the political anxieties is a market logic to which some tanker industry analysts have been pointing for some time as the likely cause of a late summer increase in rates.

Intertanko, the independent oil tanker owners' association representing nearly all of the world's tanker tonnage not owned by the oil companies, has been forecasting such a development since the early summer.

It said that with new oil tanker deliveries slowing this year, with scrapping proceeding at an unusually high rate and the number of tankers laid up rising to almost 15 per cent of the world fleet, a balance between supply and demand was bound to be temporarily restored in the markets.

This balance, suddenly achieved in the Gulf last week, could be destroyed rapidly if only a small number of the 56m deadweight tons of tankers laid up were reactivated.

It was for this reason that Scandinavian tanker owners spent half of this year trying to persuade Greek and Far East owners to join an orderly marketing cartel to sustain any improvement in rates.

This arrangement would have kept VLCCs artificially laid up, but it foundered last month through lack of support from the big Greek owners, Onassis, Livanos and Niarchos.

The tanker index compiled by brokers Harley Mullion touched WS90 last week, a 16-point improvement on the previous week and well ahead of the year's previous high of WS74 in January.

Rail unions warned of job cuts in freight business

BY OUR TRANSPORT CORRESPONDENT

BRITISH RAIL'S financial performance continued to improve sharply in the first half of this year, but railway trade unions have been warned that another push is on its way to reduce manpower in the freight business.

According to figures to be made public shortly in British Rail's first half-year statement, the rail freight business is heading for a break-even point this year, having lost £5.5m last year and £66m in 1975.

This will keep British Rail within the Government's guidelines for rail freight, but longer-term projections by the British Rail Board show that the improvement cannot be sustained without rapid increases in productivity.

At a meeting of the railways national joint consultative committee last week, Sir Peter Parker, the railways chairman, asked for union support in severely reducing the number of marshalling yards in the network.

Many of the yards have become underused or redundant because of changes in the pattern of rail freight, resulting in 80 per cent of goods being carried in block trains which do not use marshalling yards.

No figures were given for the job losses likely to be involved in British Rail's rationalisation plan, but an initial target of about 8,000 is thought possible.

Rail freight's problems are compounded by the recession in the steel industry, which in spite of the financial improvement so far this year has resulted in a reduction in the volume of business by 2.5m tonnes. Last year's total was 170m tonnes.

Sir Peter told the union leaders that without co-operation in improving productivity, planned investment in the new generation of freight locomotives, the Class 56, might also be jeopardised.

The National Union of Railwaymen is in public revolt over the demanning plan and recently instructed its members to refuse to work overtime, which it claims is being used excessively to cover up the large number of unfilled vacancies on the railways.

A meeting of the Board at the end of last week decided to follow the example of some others in the private sector and produce a half-year statement of results for the first time.

This report will show a strong improvement in passenger business, where traffic is up 5 per cent on the same period last year and much of the increase is on inter-city routes, where business is being stimulated by the spread of the 125 mph high-speed train.

Phone dispute peace bid

BY OUR LABOUR STAFF

UNION NEGOTIATORS and Post Office officials were beginning formal negotiations today to try to settle the engineers' dispute—amid growing disruption to international business operations.

The Post Office said last night that 60 per cent of international telephone circuits were out of commission and direct telephone links to a number of cities outside Europe were now impossible. The situation will worsen this week.

Access to subscriber-dialled calls to Europe is described as "reasonable" by the Post Office though the success rate in getting through has fallen from the normal one in two to the present one in four or one in eight.

Calls beyond Europe are far more variable and links to the Far East have been particularly affected by the sanctions imposed by the engineers in support of a shorter working week of 35 hours.

Officials of the Post Office Engineering Union are reasonably optimistic that a settlement to the dispute can be found based on the proposals of Lord McCarthy, who has suggested a productivity-linked reduction in the engineers' working week for 40 to 37½ hours.

Interest offer to China 'below minimum'

By David Housego

CANTON, August 13.

THE CHINESE authorities, in their efforts to obtain the best possible borrowing terms, have claimed to Western Governments that Japan has offered them credit at interest rates effectively below the minimum formerly agreed by industrialised nations for long-term support credits to developing countries.

Should this prove true, it will lead to further criticism of Japan from major industrialised nations, already impatient with the continuing magnitude of Japan's trade surplus.

Under a "gentleman's agreement" between OECD members, the minimum interest rate on export credits to developing countries of five years or more is 7.25 per cent.

The Chinese have not substantiated their claim that the Japanese are getting around agreements, except to hint that Japan is using its strong foreign exchange position to help China.

Orders

It emerged over the weekend that in further discussions in Peking with members of the British trade delegation under Mr. Edmund Dell, Trade Secretary, the Chinese said that they now want full buyer's credit to finance what increasingly seems the very large orders they are prepared to place with British industry—as long as it is fully competitive.

The step is a further milestone in China's emergence in international markets as an open borrower.

The Chinese are looking for Export Credits Guarantee Department credit over five years and are likely to obtain maturities of between 8-10 years. The department will shortly be informing industries and banks most closely concerned of the position.

Negotiations are now expected with Bank of China on the legal technicalities of drawing up buyer's credit agreements.

As was once the case, China is reluctant to accept provision for arbitration in the event of a dispute being written into a contract.

This becomes increasingly important as the size of contracts grows. There is also difficulty in defining under whose laws a contract would be made.

As the amounts involved in
Continued on Back Page

'Rescue' main weapon in Chrysler deal

BY JOHN HUNT AND NICK GARNETT

THE GOVERNMENT is prepared if necessary to take legal action against Chrysler for the repayment of some of the large sums of public money which the American car company received as part of the rescue operation of its UK plants.

Ministers see this as the main weapon in their armoury in negotiations which start this week on the proposed Peugeot-Citroen takeover of Chrysler's British operations.

Mr. Eric Varley, Industry Secretary, and Mr. Alan Williams, Industry Minister, today meet leaders of the company's nine unions to discuss the deal, which is part of Peugeot-Citroen's $430m proposal to buy out all Chrysler's European operations.

There is now a feeling among union leaders that Peugeot's main interest in Chrysler's UK operations is its medium truck plant at Dunstable.

Union chiefs consider this to be a possible bargaining counter which the Government can use to persuade Peugeot into giving firm commitments on job security within the company's car division.

Apart from listening to information supplied by Mr. Varley and pressing for assurances on job security, the unions might also ask for an early meeting with Peugeot management.

Most union officials believe that such a meeting would be better held under the auspices of the Industry Department.

More details

When a clear picture of Peugeot's intentions has emerged, a joint union meeting of senior union officials and shop stewards is likely.

Mr. Varley has told M. Jean-Paul Parayre, head of Peugeot-Citroen, that he wants urgent talks with him or appropriate Board members in London to learn more details of the French company's plans.

It is hoped that such a meeting can take place this week.

In theory, the Government could use the Industry Act to block the takeover on the grounds that it is against the public interest.

In practice, such a blunt instrument could not be used as it would jeopardise the future of the Chrysler plants and rebound on the Labour Government in an autumn election.

Ministers believe that the threat of legal action against Chrysler is the best method of obtaining firm undertakings from Peugeot-Citroen about the future of the British operations.

Such a move would cause Chrysler to bring pressure to bear on the French motor company to achieve the best possible terms for the British plants and workforce, particularly for the much troubled Linwood factory in Scotland.

MR. ERIC VARLEY
Meeting nine unions today

So far, Chrysler has received £51.5m in grants and £30m in loans from the British Government to meet losses on UK operations.

As the agreement still has a year to run and as the American company did not inform the Government of the French takeover bid until the eleventh hour, Ministers believe that they have a good case for action in the British courts for the recovery of at least some of that money.

They are optimistic about the turn of events and see the French bid as a chance to renegotiate a better deal and give a new chance for Chrysler's UK plants.

Any suggestion from the unions at today's meeting that the Government should use the Industry Act to block the takeover will get short shrift.

Mr. Varley and Mr. Williams will impress on the unions the necessity of giving meaningful and concrete undertakings on productivity to ensure the success of the negotiations.

When he meets Peugeot-Citroen officials, Mr. Varley will want to know how their development programme would differ from Chrysler's; what their investment programme will be; what new generation of models is envisaged; which markets will be served, and from where.

Further discussions will then take place between Ministers at the Departments of Industry, Employment, Scotland, and the Treasury, to draw up a specific agreement.

A final decision is likely to be taken at a Cabinet meeting early in September.

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OVERSEAS NEWS

French unemployment up 30 per cent in two years

BY DAVID WHITE PARIS, August 13.

THE FRENCH economy is bracing itself for a rather gloomy autumn. The Government's expectations of increasing unemployment and a slow-down in the lively expansion which marked the first half of the year have come true in the latest figures from the Labour and Economy Ministries.

The number of people looking for jobs rose in July for the second consecutive month, by 5.3 per cent to 1.09m. This was about 9 per cent higher than a year ago, while on a seasonally adjusted basis the number of jobless reached a record high of 1.24m, the first time the figure has passed 1.2m, and marking an increase of more than one-third in two years.

At the same time, the number of job opportunities has touched rock-bottom, dropping 9 per cent in absolute terms to 87,500 and 2 per cent on an adjusted basis. By both means of calculation, this was 16 per cent fewer than in July last year.

The authorities say the recent rise in the number of unemployed is a result of companies' postponing recruitment in order to benefit from the incentives aimed at encouraging after the end of the summer holidays, and some observers believe the unemployment rate came into force last month. More than half the job applications registered last month were from under-25s.

On the other hand, a further increase in applications from school-leavers is to be expected after the end of the summer holidays, and some observers believe the unemployment rate will touch 1.5m.

The announcement coincided with a drop in France's industrial production index for June, a set-back to the growth trend which set in in the beginning of the year, spurred by the confidence of consumers after the Centre-Right coalition's win in the March general election.

The index based on 100 in 1970, dropped to 126 in June from 127 in May and was 1.5 per cent down on June last year.

The Economy Ministry said the lower production rate was partly due to technical stoppages in the processing of natural gas and oil products as well as labour trouble in the motor industry—referring to the Renault strike and lockout at its big Flins factory outside Paris.

A recent survey by the Government's statistics bureau INSEE forecast that consumer demand would drop slightly in the third quarter of the year, followed by only a modest recovery in the last three months. The growth of demand from abroad was also likely to slow down to an annual rate of between 4 and 5 per cent in the second half of the year compared with the 6 to 7 per cent level which France has enjoyed since the summer of 1976.

Muzorewa critics expelled from UANC

SALISBURY, August 13.

BISHOP ABEL MUZOREWA, one of the black members of Rhodesia's transitional government, today slashed attacks on his leadership of the United African National Council (UANC) and won a resounding vote of confidence from provincial delegates of the party.

Four senior local party officials who had criticised the Bishop as politically inept were expelled from the party along with Mr. Byron Hove, a former co-minister of law and order who was sacked from the Government in April, and Mr. Pius Murombe, chairman of the London branch of the UANC.

A meeting of 200 delegates also rejected calls for an all-parties conference to discuss the future of Rhodesia, as proposed by Britain and the U.S.

The delegates unanimously passed a motion of confidence in Bishop Muzorewa, asking him to speak for the party and the country as he saw fit.

The Bishop yesterday addressed a UNAC rally in the Musana tribal area about 40 miles north of Salisbury. Press pictures showed him with people described as guerillas of Mr. Robert Mugabe's faction of the Patriotic Front who had switched their allegiance to the transitional government.

Reuter

WORLD TRADE NEWS

LNG DISTRIBUTION

Rotterdam's key role threatened

BY CHARLES BATCHELOR AMSTERDAM, August 13.

ROTTERDAM IS in danger of losing its position as the energy distribution centre for Europe unless it is chosen as the site for a liquefied natural gas terminal. The port's importance as an oil handling and refining centre has already been reduced in the wake of the energy crisis while related chemical industries are working below capacity, Mr. Henk van der Pols, the alderman responsible for the port and economic affairs, said.

Rotterdam is now intensifying its campaign to become the site for a terminal to receive 80bn cubic metres of Algerian natural gas between 1984-2004. Rotterdam initially seemed certain to be chosen for the terminal but the near harbour of Eemshaven in north-east Holland is also being considered as a serious alternative.

Siting the terminal near Rotterdam would allow the development of new chemical industries such as cryogenic industries since Eemshaven provides local markets.

In addition limits on the size of vessel which could dock at Eemshaven would mean Holland would not be able to handle the large tankers which will be needed to transport Middle East gas which is expected to be imported into Europe in the longer term.

The oil refineries in Rotterdam have faced serious problems since the oil crisis and over-capacity is now estimated at 40m tons, or about 45 per cent of total capacity. Local refineries in countries served by Rotterdam are now refining more to compensate for their own over-capacity and Rotterdam is losing its "balancing" function.

Comecon countries are increasing their exports while new capacity will come on stream in the Middle East and north Africa in the mid-1980s. Projects already under way in Western Europe will add 50m tons of new capacity by 1985 so that in spite of capacity reductions which are now being carried out total EEC capacity will remain around current levels of about 850m tons.

A further problem is that refineries in the Caribbean, in particular on Curacao and Aruba, may seek to compensate for lost markets in North America by switching to Europe.

Shell expects to lose Fl 240m on its Rotterdam refinery alone in 1978 after losing Fl 300m last year on its production facilities at Pernis and Moerdijk. Shell has closed its largest distillation plant and replaced it with an older and much smaller plant. Naphtha production has been stopped since it can be bought more cheaply from Comecon countries and Italy. Shell expects its 38.5m-ton refinery will handle only 16m tons this year and it is considering reducing it to a purely local refinery with 10m tons capacity.

Both the Esso refinery Botlek and BP in Europoort are working at only 60-65 per cent capacity. Gulf Oil's refinery Europoort is loss-making, despite the relatively high capacity use of 70-75 per cent. Only Chevron achieved higher capacity use per cent, because it did expand before the oil crisis.

Rotterdam's refinery capacity may have to be reduced to per cent of present levels, city authorities said in a recent report. To compensate considerable investments will be needed to increase secondary processing capacity. Rotterdam is also suffering from the decline in demand for chemical products and competition from abroad. Less than 80 per cent of capacity will be kept in use in future according to OECD statistics. Holland accounts for 18 per cent of the European base chemical industry with 30 per cent of it situated in the Rotterdam area.

Ethiopian troops take major town

BY DAN CONNELL KHARTOUM, August 13.

ETHIOPIAN GOVERNMENT forces rolled into the city of Agordat this week taking the last major town from the Eritrean Liberation Front (ELF) and setting the stage for a showdown with the Eritrean People's Liberation Front (EPLF).

The fall of Agordat has been a foregone conclusion since Ethiopia overran a series of ELF-held cities and towns during the past three weeks of what has become the largest military campaign ever fought in the 17 year Eritrean war for independence from Ethiopia.

Its main significance lies in the fact that the Government is now in a position to launch a two-pronged assault on the Eritrean city of Keren which is held by the EPLF, the stronger of the two main Eritrean guerrilla movements. Informed sources here say that such an assault may already have begun with substantial backup support from Cuban forces on the ground and in the air.

Agordat, nestling in the foothills of western Eritrea, is the gateway to the Red Sea territory's highland plateau which rises rapidly to 2,500 metres (5,000 feet) above sea level and is the most densely populated area of Eritrea.

The Ethiopian strategy in the current offensive breaks down into three stages. In the first, the Government set out to mobilise and deploy its forces inside Eritrea and along Eritrea's souther border with Tigrai and Gondar provinces.

Stage one began officially on June 5, according to the Government's own official statements, but it was substantially delayed by attacks from the EPLF, the ELF and a third anti-Government movement in Tigrai, the Tigrai People's Liberation Front (TPLF).

Stage two called for the opening of three principal highways running from Tigrai and Gondar to the encircled city of Asmara, and the capture of all cities and towns along these roads. To date this has been only partially successful.

Stage three, which involves Government strikes on rural guerrilla bases in the vicinity of the newly reoccupied towns and highways has yet to be implemented except in the western lowlands against the battered remnants of the ELF. Instead, Ethiopia appears to be concentrating its full strength for the confrontation with the EPLF between Agordat and Asmara.

Diplomatic sources say that the Government plans a pincer attack west from Asmara and East from Agordat toward Keren with fully mechanised units and a heavy reliance on airpower.

Portuguese leader to meet Socialists

By Jimmy Burns LISBON, August 13.

PORTUGAL'S NEW Prime Minister Dr. Alfredo Nobre da Costa will hold a crucial meeting with the Socialists tomorrow in an attempt to change their apparent resolve not to participate in his Government. Socialist party leader Dr. Mario Soares repeated today that party members were not prepared to participate in a Government that was not led by Socialists, adding that this would almost certainly rule out their participation on an individual basis.

The Socialists are clearly angry at the way in which President Ramalho Eanes appointed his new Prime Minister last week. They say Sr. da Costa did not feature among the five possible candidates listed by the President, from which they were meant to choose. Moreover as the party which won the past general election with nearly 35 per cent of the votes, the Socialists insist that they are constitutionally entitled to have one of their members leading the country.

Chinese mission visits Australia

BY JOHN HOFFMANN PEKING, August 13.

A MAJOR Chinese iron and steel buying mission has left Peking for a one-month visit to Australia which will almost certainly lead to large orders for Australian producers.

The seven-member mission is led by Mr. Pi Yi-Ming, the deputy general manager of the China National Minerals and Metals Import and Export Corporation (Minmetals).

Other members are specialists in a range of mineral purchases, iron and steel products and transport of ore and iron products. Australian diplomatic officials in Peking stressed that the group was a buying mission, concerned with negotiating and concluding contracts for Australian ore.

China's consumption of Australian iron ore has increased substantially since last year, when sales totalled about 3m tonnes. In 1978 Australia will deliver more than 5m tonnes.

Australian ore producers and trade officials are confident that even greater quantities will be negotiated as China's long-term industrialisation and steel production programme takes form.

China made it clear early this year during a visit by the Australian Minister for Industry and Commerce, Mr. Lynch, that it was happy with the quality of Australian ore and that it would continue to buy if the prices was right. There has been no suggestion that the Chinese authorities are dissatisfied with Australia's prices.

It is not known whether the Chinese Minmetals group will negotiate long or short term contracts. Most previous ore deals have been short term but Chinese trade officials have shown increasing interest in long term arrangements which would ensure supplies of ore over the next eight years.

In that time China intends to increase its annual steel output from about 25m tonnes to 60m tonnes.

The Minmetals group will travel widely in Australia and explore metallurgical interests beyond the purchase of iron ore. They will talk with mining companies and are expected to visit aluminium refineries, lead and zinc smelters, the Kambalda (WA) nickel mine, Pilbara iron deposits, port facilities and Mt. Isa mines.

The Chinese mission is expected to show a particular interest in Australian copper—an interest which has freshened since Mr. Lynch's visit, although Australia has made no copper sales to China in recent years.

Nickel may also be on the Chinese shopping list. China established substantial stockpiles three years ago but these are believed to have run down. Its own production is said to be only 10,000 to 12,000 tonnes a year.

BL wins £8m bus, truck order

BL, formerly British Leyland has won orders for trucks and buses worth £5.5m in the Far East, New Zealand, Egypt and Sri Lanka in the past two weeks.

The biggest order is for 70 trucks for Sri Lanka, worth £3m, while Egypt has placed one—its first major orders since the lifting of the Arab boycott of BL products for 50 trucks worth £1.5m.

Hong Kong is taking 15 double-deck buses for £2.8m, New Zealand 25 city buses for £375,000 and Malaysia 65 trucks for £1m.

HK factories deal

The daily English language newspaper, the Hong Kong Standard, reports that at least 1 large Hong Kong factories are on the verge of concluding agreements with China to set up profit-sharing joint ventures in southern China, according to AP-DJ in Hong Kong.

The newspaper said the Hong Kong factories would be providing mainly technological know-how, management skills and most of the sophisticated machinery.

The Pope is buried

By Paul Betts ROME, August 13.

POPE PAUL VI was buried in the Vatican crypt this week-end after a funeral service which was held, for the first time in the history of his Church, in the open piazza before St. Peter's and televised by satellite to more than 1bn people in 94 countries.

Now the Vatican is turning its attention to the future of the Church and the choice before it: whether to continue on Pope Paul's middle road, or to adopt a more progressive or conservative line.

Informal consultations between cardinals are already believed to have started, but known opinions weigh heavily...

The preparation and in the course of the secret conclave starting August 25 to choose the Pope's successor.

There is now speculation over the next Pope, especially since the balance within the conclave has changed with the increasing weight of the developing world. For the first time since the election of Adrian VI, a Dutchman, in 1522, a non-Italian could be chosen, although the odds are still thought to be against this.

However, of the 115 cardinals entitled to vote, more than 100 were appointed by Pope Paul, and it is reasonable to expect that many of them will wish to elect a new pontiff who will continue Pope Paul's work.

Talks on NY newspapers

BY JOHN WYLES NEW YORK, August 13.

TALKS WILL resume to-morrow to try to end the Pressmen's strike which has prevented the publication of some 12m copies of New York's daily newspapers over the past four days.

The non-appearance of the New York Times, the Daily News and the afternoon paper, the New York Post, is causing considerable advertising difficulties for the city's department stores and theatres. Paperback sales are said to be booming as millions of commuters try to fill a void in their daily reading while suburban newspapers and more esoteric publications like the Rev. Sun Myung Moon's News World have stepped up their print runs to mop up some of the newly available readers.

The Pressmen walked out last Wednesday after long negotiations on a new working contract stumbled on the issue of manning. Having introduced the new printing technology which is widely employed throughout the U.S., the three New York newspapers claim that they are employing twice the number of printing room operators than they need. When a deadline for agreement passed without a settlement, new manning levels were unilaterally fixed and the pressmen reacted by striking.

New Israeli settlements

BY DAVID LENNON TEL AVIV, August 13.

ISRAEL is planning to build five new settlements in the Jordan Valley section of the West Bank, it was announced today.

The decision was taken a few weeks ago, but publication of the news was forbidden by censorship. It was only after Opposition MPs protested vehemently against the secrecy that the Government reluctantly permitted the news to be published.

Three of the settlements will be near Jericho, and the other two further north along the Jordan Valley. They will reinforce the string of Jewish villages established in the valley since 1967 by the Labour Party Government.

Meanwhile, the preparations for the Camp David meeting of the leaders of Israel, Egypt and the U.S. were getting under way here.

Mr. Moshe Dayan, the Foreign Minister, held consultations with the former Prime Minister, Mr. Yitzhak Rabin, and former Foreign Minister, Mr. Abba Eban.

China accused of border raid

HONG KONG, August 13.

VIETNAM TODAY charged China with a border encroachment and killing a number of peasants in the latest of the accusations being exchanged by Hanoi and Peking.

The Vietnam News Agency (VNA) monitored here, said Vietnam had protested to China over an incident on Thursday in which Vietnam alleged that 37 Chinese led by four soldiers entered Ha Tuyen province, killed an unspecified number of villagers and burned farms.

VNA charged what it termed this fresh Chinese violation of its territory was planned by Peking to poison the atmosphere of the two nations' current vice-ministerial talks to settle their dispute over ethnic Chinese in Vietnam.

Reuter

VW outlines Brazil investment

SAO PAULO, August 13.

VOLKSWAGEN AG plans to invest $600m in its Brazilian subsidiary over the next four years, but it has shelved plans to produce light trucks in a joint venture with Chrysler's unit in Brazil. Volkswagen's president, Herr Toni Schmuecker, said here.

Referring to the talks between VW and Chrysler, Herr Schmuecker said the discussions did not progress and the matter would go no further. VW's Brazilian unit had sales of $1.05bn in the first six months of 1978.

Herr Schmuecker denied that the Brazilian Government had forced Volkswagen do Brasil to halt its sales to South Africa. "I want to make it very clear," he said, "that there was no pressure on the part of the Brazilian Government."

He said the South African market was abandoned because of high taxes and protectionist measures adopted there.

Herr Schmuecker said that Volkswagen was very interested in diversification because it could not live entirely on automobile production.

In the first six months of 1978, the popular Beetle led VW do Brasil sales in Brazil. But the company is facing a challenge from Fiat which entered the market here just two years ago with its 147 model compacts—spinoffs of Fiat models manufactured in Italy.

In the first eight months of 1976—just prior to Fiat's appearance in Brazil—Volkswagen accounted for 61 per cent of local auto sales. But in the first six months of this year, Fiat won a 10 per cent share of the market while VW's Brazilian unit saw its sales fall to 56 per cent of the market, AP-DJ.

World Economic Indicators

TRADE STATISTICS

		June '78	May '78	April '78	June '77
UK £bn	Exports	2.926	2.877	3.000	2.775
	Imports	3.032	3.095	2.812	3.072
	Balance	−0.106	−0.218	+0.188	−0.297
U.S. $bn	Exports	12.126	11.754	11.635	10.091
	Imports	13.723	13.992	14.496	13.334
	Balance	−1.702	−2.358	−2.983	−3.356
W. Germany DMbn	Exports	25.600	22.500	23.900	23.300
	Imports	21.700	19.400	20.600	20.400
	Balance	+3.900	+3.100	+3.300	+2.900
France Frbn	Exports	28.925	29.519	29.426	26.383
	Imports	28.466	29.364	28.734	28.426
	Balance	+0.459	+0.155	+0.692	−2.043
		May '78	April '78	March '78	May '77
Italy Lirebn	Exports	3.995	3.824	3.502	3.613
	Imports	4.294	3.813	3.702	3.529
	Balance	−0.299	+0.011	−0.200	+0.084
Holland Flsbn	Exports	9.137	8.960	9.423	8.406
	Imports	9.554	9.628	9.558	9.059
	Balance	−0.417	−0.668	−0.135	−0.453
Japan $bn	Exports	7.620	7.704	8.632	6.022
	Imports	6.270	5.430	5.501	5.419
	Balance	+1.350	+2.274	+3.131	+0.603
		March '78	Feb. '78	Jan. '78	March '77
Belgium BFrsbn	Exports	124.771	107.936	112.895	104.357
	Imports	128.749	122.457	122.996	109.520
	Balance	−3.978	−14.501	−10.001	−5.163

Ships for China

Ishikawajima-Harima Heavy Industries (IHI) has agreed to sell to China three ships ordered by a Greek owner but cancelled due to the world shipping slump, Reuter reports from Hong Kong.

A sale contract for a 14,800 deadweight-ton freighter and two 22,000-ton bulk carriers is likely to be signed shortly with Ocean Tramping, a Hong Kong-based Chinese shipping concern. Industry sources said the total cost will be about $25m for the three ships.

Saudi gas turbines

Brown, Boveri is supplying 10 gas turbines to Riyadh and Suburbs Electric Company for turnkey installation in the "Riyadh 8" power station. The order, the total value of which is put at SwFr 400m, consists of eight turbines covered by a contract signed in July, 1977, and two additional units to bring the power station's capacity up to a future 700 Mw ordered earlier this year.

Argentine tariffs cut

Argentina's Economics Ministry has anounced a 10 to 15 per cent reduction in import tariffs affecting 415 products not produced in the country and used as components by Argentine industry, Reuter reports from Buenos Aires.

Japan and China: an inscrutable alliance of historical proportions

By ROBERT WOOD IN TOKYO

THE GROWING relationship between Japan and China symbolised by the signing of a peace and friendship treaty between them on Saturday is the first modern alliance between two powerful countries outside the Western framework.

Japanese technology and management ideas will almost certainly transform China and Peking's markets and raw materials will in turn give another strong push to Japan's economic growth.

For the West, the relationship demands a difficult adjustment. Japan-China negotiations ignore Western rules of contracts and morality. They force the West to learn what the last century-and-a-half have obscured—that the Orient has a culture which is radically different but in most respects historically equal to that of the West.

Agreements between the Chinese are often brief and vague, but negotiations leading up to them are amazingly long. "When we say a 'basic agreement,' what we mean is a kind of 'spiritual agreement'," said a Japanese trader whose company was one of the first to begin extensive dealing with the Chinese. Both sides discuss the possible implications of the agreement and attempt to understand each other, intellectually and emotionally.

The process is similar to the interminable discussions Westerners have observed inside Japanese companies and described as the formation of a "consensus." The word is misleading, however, because the participants do not necessarily reach agreement in the rigorous Western sense of the term. They understand, accept, and appreciate each other's positions. They share an emotional bond. They have a complex understanding of what they will do under various contingencies.

But this understanding and accompanying formal agreements do not necessarily prevent later disputes. A Japanese businessman said that when the Japanese cut their contracted purchases of Chinese crude oil during their current recession, the Chinese were just as furious as the Australians when Japan cut contracted sugar purchases at about the same time.

The Japanese attitude in both cases was typical of their approach to contracts. They said that the situation differed from what it had been when the contract was signed, and regardless of what was written, the contracts would not be fulfilled because there was insufficient demand for the products in their domestic market.

There was one difference between the Australian and the Chinese reactions. The Australians concluded and remained convinced that the Japanese were "shifty violators" of business morality. But the Chinese adjusted to the breaking of the oil contract, and soon after it was renegotiated they were turning to the Japanese as the most reliable and easiest-to-deal-with suppliers for their dramatically expanded modernisation effort.

For the Japanese, dealing with China is the most emotionally satisfying part of foreign relations. Dealing with Western countries is painful and confusing. Westerners build their foreign policy around moral postulates that are alien to the Japanese, and then apparently violate those principles to maintain economic success.

After the disasters of the Second World War, Japan decided to keep as low an international profile as possible. That remains its policy today, but she has recognised since the 1973 oil crisis that as an economic superpower its profile cannot be as low as it was when it was a semi-developed country. Thus it has begun to seek inclusion as an equal in the councils of the West, and understanding from less developed countries in return for substantially expanded aid.

Japan seeks friendship and trade with both Communist superpowers, both of which happen to possess vast and largely untapped reserves of energy and other raw materials which Japan needs.

However, relations with the USSR are complicated by several factors which have convinced most Japanese citizens that Moscow is a bullying tyrant. The Russians kept Japanese prisoners of war for years longer than seemed necessary after 1945, refused to discuss the return of the Northern Islands which Japan claimed and built up the most powerful navy in Asian history in waters adjacent to Japan.

Toward China, on the other hand, the Japanese feel a deep cultural debt. For centuries, any Japanese who wanted to learn to write had to learn Chinese, because written Chinese was the only writing system known in Japan. In all Oriental languages, the word for China means "central country," and China was truly the centre of the world both politically and culturally for everyone in the Orient up to the 19th century.

Normalisation of relations with China in 1972 produced real satisfaction among the Japanese, except for a minority who felt obliged to the "Nationalist Chinese" Government of Taiwan. Japan's decision to go beyond the U.S. and fully normalise Peking's ties while the U.S. was bogged down with the Taiwan issue can be said to be her first major independent foreign policy decision since the Second World War.

The normalisation agreement declared that the two countries would later sign a peace and friendship treaty, but talks bogged down when the Chinese demanded that the treaty include a clause stating that both countries oppose the "hegemony" of any outside power. Under Russian pressure, Japan decided that an "anti-hegemony clause" would be a direct affront to Moscow.

Russia-Japan relations plummeted last year when the Russians sought a definitive concession of Japan's claim to the Russian-occupied Northern Islands in return for fishing rights in the USSR's newly-declared 200-mile Ocean zone, which included fishing grounds that the Japanese had always considered their own. Even the fishermen who were forced to remain in port during the dispute strongly opposed yielding to the demands. The Russians ultimately backed down to a large extent. But Japanese distrust deepened.

Discussions were stalemated for nearly 6 years until the fishing rights dispute, after which the Japanese hinted they might be willing to sign an "anti-hegemony clause" if it specified it was not directed at any particular third country. After long negotiations which ended last week, the treaty was signed with a vague statement that it "does not affect relations with third countries."

The Japanese decision to sign the treaty was the product of a domestic mood in its favour. It is seen in Japan as an epoch-making step toward closer ties between the two countries, but the entire pact is typically vague, and it is impossible to gauge precisely what it will ultimately mean.

Even without it, relations between the two countries would probably have been deep and friendly.

The agreement has raised speculation of a developing U.S.-Japan-China axis opposed to the Soviet Union. Even while the negotiations were going on, a Chinese delegation was looking admiringly at U.S. weapsons at a Tokyo aerospace display. Japan would certainly like to serve as a bridge between the U.S. and China, who are now her two most important allies.

It is unclear what concrete functions a U.S.-Japan-China axis would have, however. None of the three countries seems disposed to spend the the billions of dollars that would be necessary to build an armada capable of defending Japanese fishing expeditions from the Soviet Pacific Fleet and apart from arresting fishermen and retaining control of territories it has held since the Second World War it is unclear what kind of pressure the Russians, for all their military might, can exert in Asia, short of launching an all-out war of conquest. Russia, like China, needs Japan's technology much more than the Japanese need anything Russian.

If the direct implications of the treaty are unclear, however, the implications of China and Japan's rapidly growing economic relationship are dramatically obvious. The two economies are perfectly complementary. Japan has the technology, organisation and co-ordinating skill that China needs. China has the market that Japan needs today and the raw materials it will need in a few years when world supplies become tighter.

There is little likelihood that the Chinese will let ideological considerations interfere with their use of Japan's skills. They have all but abandoned their insistence that they will deal only with companies that avoid contacts with Taiwan, for example.

A recent survey lists 17 different major industrial plants that the Chinese are negotiating to buy from Japan, including a steel mill for Shanghai that may cost Y600bn ($3.2bn).

Most of these will be sold on credit, provided in a way that satisfies China's desire to maintain a facade of self-reliance. While the Chinese have largely lost their ideological fervour, they certainly have not lost their pride in being the "central country" of the world.

A key element in Japan's financing scheme will be deposits by Japanese banks in the Bank of China. Economically this is the exact equivalent of a loan, but somehow it is more tolerable to China's sensibilities.

The most interesting and probably the most important question of the next few years will be the extent to which the Chinese accompany their borrowing of Japan's production technology with borrowed ideas from Japan's economic organization.

The indications are that this type of borrowing will be substantial. Even during the ascendency of the "Gang of Four," Chinese experts stationed in Japan were reported to be studying the mechanisms of the Japanese economy—mechanisms which the West has so far failed to understand or appreciate.

Already, without deliberate imitation, there are at least superficial similarities between the Chinese and the Japanese economies. China has industrial communes: Japan has industrial companies with "lifetime" employment and almost complete isolation from the desires or demands of private stockholders. Both China and Japan expect communes or companies to handle day-to-day production decisions, but expect Government to coordinate their activities.

The Chinese industrial commune or enterprise could become the basis for finance, management, sub-contracting, and competition organised on the Japanese model.

The Japanese, for reasonable fees, stand ready to teach China all they know about scientific management and supervision of finance. The results will surely be historic.

Anglo-Chinese trade can be expected at least to triple or quadruple over the next few years, according to British sources following the visit of Mr. Edmund Dell, the British Trade Secretary, to Peking. Anthony Rowley in Hong Kong writes that China regards this as a "conservative" estimate.

Initial Anglo-Chinese trade and industrial co-operation is likely to centre on coal mining, oil, chemical plants and possibly steel. Although none of the industrialists accompanying Mr. Dell on his Peking mission is understood to have signed any major contract yet, the prospects are felt to be good. Sources close to the mission say there were clear indications that China was prepared to buy from Britain on a substantial scale and that a "signal" had been sent by Peking through the relevant parts of the Chinese Government machinery to co-operate with the UK on trade.

This co-operation, as one source put it, will be based not so much on Chinese regard for Britain, but rather on the internal political pressures on the Peking leadership to "produce results" in terms of material progress and on China's desire to diversify away from its trade dependence on Japan towards countries such as Britain, West Germany, France and the U.S.

Mr. Dell, who had meetings with the Chinese Vice-Premier responsible for economic affairs, Mr. Li Hsien-nien, Mr. Li Chiang, the Foreign Trade Minister, and Mr. Huang Hua, the Foreign Minister, among others, is understood to have received the impression that China would prefer to trade with "traditional suppliers" such as Britain, which already supplies aerospace and mining equipment to China.

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EEC vehicle imports 'harm UK producers'

BY TERRY DODSWORTH, MOTOR INDUSTRY CORRESPONDENT

A NEW survey of the British motor industry concludes that UK vehicle manufacturers have suffered heavily from EEC imports in their home market during the past few years without gaining any comparable benefit from export sales to the Community.

The report, published by Laing and Cruickshank, the London stockbroking firm, shows that since 1975 the rise in UK car imports has been almost entirely due to increasing sales of vehicles originating in the EEC.

"These increased their share of the UK market from 19 per cent at the start of 1975 to 34 per cent by the end of 1977. Japanese imports over the same period rose from 9 per cent to 11 per cent., while imports from all other countries increased from 3.5 to 4.5 per cent."

By contrast, the report says, the most alarming aspect of the export figures has been the near halving of sales to Europe. This is particularly disappointing as, between 1971 and 1976, total registrations in Europe (excluding the UK) rose by 13.8 per cent."

Over the five years, the UK manufacturers' share of the European car market had fallen from 5.0 to 2.3 per cent and was still falling. "If UK manufacturers had succeeded in holding their 1971 share of the European car market, production would be 240,000 units above that at present."

The survey goes on to show that the trend in favour of other areas of the EEC has also produced a marked deterioration in Britain's import-export balance in vehicle components.

"Over this period the value of [components] imports has risen by 52 per cent while that of exports has risen by only 6 per cent. In value terms, imports are approximately half the value of exports, having been less than a third two years ago."

This deterioration, it argues, is because of the increasing stock of foreign vehicles on British roads (more than 24 per cent of all cars), the growth of imports by multi-national car producers for UK assembly, and the decline in vehicle exports that has led to reduced demand for British components overseas.

The report goes on to predict that UK car registrations will fall significantly in 1979 after a slowdown in the second half of this year, mainly because of the expected decline in personal disposable income and corporate liquidity. Production will also fall sharply as British manufacturers lose further market share to imports.

The report adds that the present expansion of the UK commercial vehicle market will slow, with registrations only about 1 per cent up next year. Imports will continue to climb.

Tax avoidance quest continues

BY DAVID FREUD

ARTIFICIAL SCHEMES to eliminate tax are still being promoted in spite of the passing of retrospective legislation in the 1978 Finance Act which outlawed one particular avoidance scheme.

Legislation banning the Commodity Carry scheme was intended to deter taxpayers from using such schemes.

Avoidance specialists say that there is still considerable interest in using artificial schemes. The impetus is away from the big "off-the-peg" devices towards schemes of a more limited application, less likely to arouse the concern of the authorities.

Operators of avoidance schemes are awaiting a general election result before deciding a new policy following the retrospective precedent set in the Finance Act.

If there was a large Conservative majority, the bigger schemes might come back into favour, because the Tories opposed the full retrospection used in the Act.

The Tories have said that a future Conservative administration would apply the "Rees rules" to the problem of avoidance.

These lay down that Tory legislation against any avoidance scheme shall date from the day a warning is formally announced in Parliament.

In essence, this approach, spelt out by Mr. Peter Rees of the Shadow Treasury team, is identical to that which has evolved over the last decade.

The Labour Government abandoned this approach because the time lag between the marketing and discovery of the schemes, which were usually upheld by the courts, allowed huge amounts of tax to be avoided.

The Government claimed that the Exchequer lost about £200m in 1975/76 through organised avoidance and the losses were rising fast.

It is estimated in the industry that 200-300 people used the Commodity Carry scheme to avoid tax on income totalling up to £15m.

One person reported to have used the scheme is Mr. George Harrison, a member of the former Beatles pop group.

● NEWS ANALYSIS—HYPERMARKETS

Time to check out what's in store

BY DAVID CHURCHILL, CONSUMER AFFAIRS CORRESPONDENT

A MAJOR study of the effects of allowing hypermarkets into London is being carried out by the Greater London Council. The study, which is due to be completed in the next two months before going to the council for debate, will consider the planning, employment, and traffic consequences of hypermarket development in the capital.

The GLC's move has been prompted by the fact that the major supermarket multiple groups are now on the verge of breaking into the potentially lucrative London market. Already Tesco has reached the nearest to London with its newly-opened superstore—believed to be the biggest so far in Britain—just outside Basildon in Essex, some 30 miles from the capital.

In October, Tesco plans to open a 36,000 sq ft superstore—it prefers the terms to hypermarket—in Finchley on the northern outskirts of London. This will be followed by a similar-sized store in Tottenham, north London, in 18 months' time. And if Brent Borough Council gives the final go-ahead, Tesco will build a massive 100,000 sq ft superstore in Neasden, behind Wembley Stadium in north London, on derelict British Rail property.

Tesco is not alone in seeking to extend the hypermarket form of retailing—pioneered mainly in the north of England—into London. Asda, the Co-operative groups, J. Sainsbury, and Carrefour are all actively seeking sites in London. But Tesco appears to have the edge at the moment for two reasons.

One is the existence of its new Basildon store which it hopes will act as a showpiece for future developments in London. East London is marginally within its catchment area and Tesco hopes that word of mouth will spread its retailing message and help overcome local objections to the giant stores.

But more important is Tesco's willingness to work with local authorities and develop superstores on inner city sites. The other hypermarket groups appear less willing to forgo the traditional hypermarket concept of "green field" developments on the edge of town, accessible mainly to shoppers with cars.

Mr. Peter Shore, Environment Secretary, has, however, adopted a consistent policy over the past two years in arguing that planning and industrial development must be aimed at regenerating the inner cities rather than dispersing jobs and commercial activity even further.

This attitude was borne out last week in a major review of hypermarket planning appeals published by chartered surveyors Donaldsons. This showed that while Government planning inspectors appeared to be adopting a more lenient attitude to hypermarket planning applications in "green field" sites, Mr. Shore was more restrictive.

Out of seven appeals for hypermarket development which the inspectors upheld, Mr. Shore vetoed four.

His policy was formalised in Departmental guidelines published late last year which made clear that "green field" development on the edge of towns would only be allowed if inner area sites were not feasible.

Most of the hypermarket groups were disappointed by these guidelines as they failed in their opinion to give specific guidance on the criteria for hypermarket development. Tesco, however, made clear that it was willing to build wherever local authorities wanted, subject to the site being commercially viable.

Mr. Ian MacLaurin, managing director of Tesco Stores, yesterday re-affirmed the company's willingness to work closely with local authorities within the Department's guidelines. In addition, Mr. MacLaurin said that Tesco would not make any more planning appeals for "green field" superstore development because of their cost—about £40,000 per appeal—and their drain on executives' time.

Tesco was fortunate with its new superstore at Basildon in that it was a site approved by the local council. Originally F. W. Woolworth had planned to build a Woolco superstore there but when it decided against this, Tesco stepped in.

The superstore, which is at Pitsea near Basildon, covers 82,000 sq ft, with a garden centre comprising another 14,500 sq ft, and a 20,000 sq ft self-service petrol station and tyre bay. It employs about 600 people, cost about £4m to develop, and has parking for up to 3,000 cars either on site or nearby.

Although Tesco is reluctant to disclose the store's takings since it started just three weeks ago, estimates put weekly turnover at up to £1m when the store reaches its peak.

Tesco firmly believes that superstores will be part of the retailing scene for the forseeable future. But in a new discussion document published today the company makes clear it also sees a future for the small shopkeeper and traditional High Street retailer.

The document, called "Retail Planning for Tomorrow's World," says that the decline in the number of small shops is coming to an end. "Small units catering for the everyday, convenience needs of the neighbouring community," must, says Tesco, "remain a staple of the industry."

But Tesco also believes it likely that "Britain's High Streets will, in future, concentrate increasingly on specialised durable items." This is already occurring, says Tesco, with the proliferation of boutiques, travel agencies, do-it-yourself shops, and record and sports wear shops.

Tesco argues that the development of the small shop and High Street retail trade will complement rather than conflict with the new superstores.

Campaign seeks official aid for British films

BY LISA WOOD

BRITAIN'S INDEPENDENT film producers yesterday launched a three-month campaign to get active Government support for indigenous film-making in British themes.

During the past three years two committees have examined the role and difficulties of the British film industry. Two reports have been published in which the Government was asked to take a substantial role in the industry by establishing a British Film Authority with the provision of £20m equity capital.

But central to the Association of Independent Producers' argument is that the reform proposals gave no idea of what policies the new film body should follow. In particular, they did not define the [illegible] of interests in the [illegible].

As the producers see [illegible] their report, published [illegible] "is the BFA to be a [illegible] independent producer or is it to become the [illegible] duopolies?" (By [illegible] the association refers [illegible] EMI, which [illegible] them dominate the industry.) The association [illegible] only if these chains [illegible] up would British [illegible] a healthy, competitive [illegible] which to operate.

They suggest a [illegible] in which the Government [illegible] ports indigenous films [illegible] British themes.

Factory design praised

Financial Times Reporter

A FACTORY in Bath, used for the manufacture and assembly of open-plan office furniture, was described today as one of three outstanding contemporary buildings in this country which are destined to become masterpieces of the 1970s.

The Herman Miller factory was singled out—also the Sainsbury centre for the visual arts at the University of East Anglia and the National Theatre in London—by Mr. Gordon Graham, president of the Royal Institute of British Architects, in announcing the institute's architectural awards for this year.

The scheme attracted 325 entries. Seven buildings received awards and 23 won commendations—the highest number in the scheme's 13 year history. Entries were drawn from a wide variety of building type. Only one award could be made in each of 13 regions in the UK, the buildings chosen being considered to be "excellent of its kind, irrespective of size or cost."

Regional commendations are made for buildings which, while not winning awards, were considered "sufficiently thoughtful, imaginative and satisfying [illegible] to deserve public notice."

The National Theatre, designed by Sir Denys Lasdun, was completed in December, 1976.

Remaining buildings which received awards were Chloride Technical, Swinton, Lancashire; Berry Hill nursery, Mansfield; Keble College new building, Oxford; Ancillary buildings, British Steel Corporation, Imperial Works, Airdrie.

Insurers urged to study claims procedures

BY ERIC SHORT

THE British Insurance Association is asking member companies to review procedures for settling claims on householder insurance policies.

The request is made in a letter to members by Mr. Roger Bardell, secretary-general of the association.

He referred to recent criticism of the companies' practice of scaling down the amount paid under household claims, where there was underinsurance by the application of averages.

Because company policy wordings and claims settlement practice varied widely, it was inappropriate for the association to reply publicly to these comments.

Mr. Ron Peet, chairman of the association, felt that insurance companies would wish to consider the matter carefully in the light of this criticism and in anticipation of inquiries from interested bodies, such as the Office of Fair Trading.

Three points requiring particular attention were:—

● To ensure that their office practice was clear and that it was known and understood by those employees responsible for settling claims.

● Where the practice included an element of scaling-down in certain circumstances, to ensure that it was supported by up-to-date legal advice, having regard to the wording of the proposal form and policy document.

● To reconsider carefully the public relations implications and to have regard to the "Statement of Insurance Practice," the code of operations.

The association told members that Mr. Peet had asked the Household Insurance Panel, under the chairmanship of Mr. Pat Bartrum, to undertake a study into the implications of introducing an average clause into household policies.

Under the practice of averaging, the amount paid under a claim is scaled down in proportion to the degree of underinsurance. If the sum insured under a contents policy is £4,000 when the value of the contents is £8,000, for a claim of £1,000 the payment made would be £500—one half.

Prudential Assurance has announced that it intends to introduce a system of index-linking sums insured under householder insurance policies, to overcome problems arising from underinsurance. This is not expected to start before the middle of next year.

The Prudential has over 2¼m household policies and policyholders will be informed about the change well in advance. The index-linking will operate automatically unless the policyholder specifically informs the company that he does not wish this to be done. In such cases, an underinsurance clause would be added to the policy.

Call box credit card plan

THE POST OFFICE is considering introducing a credit-card system for use in some telephone kiosks.

The cards, termed "cardphone," made of stiff plastic and to range in value from 50p to £50, would be purchased from post offices and shops.

The card would be inserted into a slot and the call made in the normal way. It would deduct the cost of calls from the value of the cards until used up.

The Post Office is [illegible] the proposal. N[illegible] research has been [illegible] out so far.

The Post Office said [illegible] telephone service was [illegible] improved. "Cardphone may replace coin-operated telephones in a number of locations [illegible] do not see them replacing coin telephones."

Britain has more than 77,000 telephone kiosks and [illegible] 380,000 pay phones in public houses and shops.

Councils rapped over mentally ill

LOCAL AUTHORITIES are still doing far too little to provide housing for mentally ill and mentally handicapped people, Mind, the National Association for Mental Health, says in a report published today.

Its survey of local authority policies towards the mentally ill found that only 38 per cent of 368 councils are letting property to health or social services for use as hostels or group homes for mental sufferers.

LABOUR NEWS

Dock workers told to suspend action

BY NICK GARNETT, LABOUR STAFF

DOCKYARD WORKERS, whose sanctions in support of a pay claim have disrupted naval bases, will be advised today to suspend industrial action while they consider a new wage offer.

A circular from Mr. Mick Martin, the Transport and General Workers Union public services national secretary, advising the workers to lift sanctions, has been sent to all naval dockyards.

Meetings at most of the yards, including the Polaris submarine bases on the Clyde, where sanctions have affected work on the submarines and the vessels' movements, are due to take place today to consider the new offer made on Friday.

The offer, which affects 183,000 industrial civil servants, involves a peace formula agreed by Ministers and trade union leaders.

The union circular makes it clear that union negotiators believe the deal is the best they can obtain in talks with Ministers and that the negotiations have come to an end. It gives the dockyard workers until August 25 to respond.

National union officials said yesterday that first indications were that shop stewards might agree to the new pay formula. Pickets around the Faslane Polaris submarine base on the Clyde were withdrawn late on Friday as an act of good faith pending a meeting there today.

Mr. Les Chaplen, Amalgamated Union of Engineering Workers convenor at the Portsmouth dockyard, said last night that some workers at least were now prepared to accept the offer.

The formula involves consolidation of the £6 Phase One allowance and £2.60 of the Phase Two allowance into basic rates, together with an additional 5 per cent. Craft and supervisory allowances will be boosted by 50 per cent.

Some pay anomalies would be corrected, and 30,000 low-paid workers would receive between £1 and £1.50 productivity bonus, based on a special efficiency scheme.

Talks on next year's wage settlement will take into account comparable pay and conditions outside the Civil Service, and there will be negotiations on altering the settlement date.

Heseltine attacks union leadership

BY NICK GARNETT, LABOUR STAFF

MR. MICHAEL HESELTINE, Opposition spokesman on environment, yesterday entered the growing political squabble between senior Conservative Party officials and the TUC when he mounted another Tory assault on the trade union leadership.

"Our attack is not on trade unions," said Mr. Heseltine. "It is on leaders so intolerant of other political views than their own that they seek to limit the genuine democratic choice of the ballot box."

The Tory attack, Mr. Heseltine's statement went on, was on union leaders who pursued socialism when elected to pursue prosperity. They were determined to use their economic strength for the political purpose of imposing socialism on a non-socialist Britain.

Instead of setting up their operations to benefit from the free-enterprise system, union leaders "prefer tight little socialist huddles where no ideas but their own are ever heard."

Mr. David Basnett, chairman of the TUC and leader of the General and Municipal Workers' Union, at the weekend advised Mr. William Whitelaw, the deputy Conservative leader, to do some homework on union democracy.

Mr. Basnett told him that no union general secretary could survive if he ignored "the democratically-determined policies of his own union."

Last night Mr. Basnett replied to Mr. Heseltine: "To attack trade union leaders is to attack the unions themselves."

Eisteddfod seeks cash aid from EEC

EEC FINANCIAL backing is to be sought for the Eisteddfod, Wales's annual cultural festival.

An Eisteddfod delegation plans to visit Brussels in autumn to seek an annual grant of £200,000 towards the festival, costs of which have soared in recent years.

The staging of this year's Eisteddfod in Cardiff, which ended last night, is expected to have cost £520,000, more than double the expenditure four years ago.

While the organisers expect to break even this year—partly because of a one-off Government grant of £275,000—they see an urgent need for new income to guarantee the festival's future. The Eisteddfod plans to seek greater sponsorship from business and industry.

Backing for the approach to the European Commission has been given by Dr. David Owen, Foreign Secretary.

Technical Page

EDITED BY ARTHUR BENNETT AND TED SCHOETERS

● RESEARCH

GEC centre solves a tough problem

SILICON on sapphire (SOS) is one of the more difficult technologies that can be applied to microelectronics to improve performance by higher packing and better operating speeds of sub-components.

To date, only Hewlett-Packard appears to have had the determination and the cash to push the technique through to the point where it can be called a commercially viable proposition, albeit at a cost of about $20m and several years' work, including microprocessor development. The company is now reaping the benefit both in the way of launching new products with higher performance or providing existinging products with drivers that will do the same job at lower cost.

Now Hirst Research Centre of General Electric Company has announced successful completion of development work on silicon on sapphire complementary MOS integrated circuits in a programme funded by the corresponding Ministry of Defence procurement executive.

The work at Hirst has involved demonstrating the levels of integration to which this process can lead and the production of a fast seven-stage binary counter.

Marconi space and defence systems and Marconi avionics have collaborated with Hirst in identifying best areas of application for components made by this technique and the directorate has placed a contract with GEC for the development of a series of large scale integrated circuits based on SOS.

Hirst will be responsible for devising the production process and the two Marconi companies will work with it to design, test and evaluate the preferred circuits.

Hirst Research, East Lane, Wembley, Middx. 01-904 1262.

● CONFERENCES

Information processing

THE next conference and exhibition of the International Federation for Information Processing, "IFIP 79," is to be held at the Wembley Conference Centre on September 25 to 28 next year.

Conference emphasis will be on the practical and economic aspects of computer applications and a "call for papers" leaflet is available from the British Computer Society, the UK IFIP host responsible for the practical arrangements of the conference.

Organisers of the related exhibition, the Business Equipment Trade Association (BETA) will be aiming to make it Europe's major specialised data processing exhibition of 1979. Most hardware and software aspects will be covered. A preliminary stand layout is already available and the "floor-space-only" charge will be £45 per square metre.

More from the BCS, 13 Mansfield Street, London W1M 0BM (01-637 0471) or BETA at 109 Kingsway, London WC2B 6PU (01-405 6233).

Applications programming

AN INTENSIVE one day seminar is to be held by Intel on September 4 on applications programming for the company's RMX-80 real time multi-tasking executive software which operates on the SBC 80 single board computers.

This is an introductory course intended for persons familiar with microprocessor-based assembly or high level languages, but unfamiliar with real time executives and operating systems. Speakers will include experts from the U.S. and the seminar is aimed at all who design, implement or test micro application software. The registration fee is £25.

More from 4 Between Towns Road, Cowley, Oxford, OX4 3NB (0865 771431).

● PROCESSING

Blows dents out of drums

NEW IN the range of drum renovation equipment produced by Caldwell Burner Developments of Rishton, Lancs, is a de-denting unit for processing 40-50 gallon drums.

Semi-automatic in operation, the facility is capable of restoring damaged drums to their original capacity at a rate of approximately one per minute.

Removal of surface indentations on used drums is effected by air pressurisation of the drum interior, accompanied by a roll forming operation to restore the external shape. The drum reconditioning is carried out in a safety chamber, which has provision for automatic cut-off of the air supply until the chamber door is locked.

In the reconditioning sequence, a damaged drum is loaded manually on a turntable within the chamber and is contained by a hydraulically-operated top clamping plate. The chamber door is then locked and air is introduced through the head bung of the drum. The external shape is restored while the drum is under pressure, with two pairs of side rollers maintained in contact with the rotating drum body.

Suitable for use by drum users and reclaimers, the new reconditioning unit can be supplied for direct operation from an existing compressed air supply or complete with an air compressor. The floor area occupied by the basic reconditioning unit is approximately 6 feet by 5 feet.

Caldwell operates from Sands Road, Rishton, Great Harwood 885257.

● HEATING

High efficiency boiler

CAREFUL ATTENTION to design and rigorous attention to experimental evaluation has resulted in a commercial/industrial gas boiler from Chaffoteaux that achieves an efficiency of 81 per cent at full heat output rising to 83.2 per cent at 20 per cent output.

With many equipments on the market the efficiency drops with decreasing output—an unsatisfactory state of affairs according to the company, which maintains that sufficient data is now available to show that commercial boilers spend much of their time trying to match loads equivalent to 20 to 40 per cent output. This is frequently done either by modulating boiler output or allowing a fixed boiler output to cycle with shorter and shorter fired-up intervals, giving thermal inertia problems.

Chaffoteaux uses a modulation technique, but has been able to maintain maximum efficiency over the range by using a servo-motor-controlled damper, linked to the gas valve, to control the amount of secondary air introduced. The primary air supply for combustion is completely separate.

As the heat output is reduced by progressive closure of the gas valve, secondary air is simultaneously reduced, ensuring an optimum air/gas ratio at all stages of modulation.

Other design steps taken include the use of copper in a relatively high surface area to output ratio heat exchanger, increased turbulence over the exchanger for higher efficiency, even thermal loading over the exchanger's area and extensive insulation to reduce radiation and convection losses.

However, the burner area and profile, secondary air modulation and insulation have been optimised for the 20 to 40 per cent output range.

Known as the Econoflame, the unit is available with outputs from 100 to 500 kW.

Construction is based on a preformed steel chassis with refractory brick-lined combustion chamber, with glass wool, aluminium foil and air gap insulation between combustion chamber and outer case. Baffles and burner bars are in stainless steel.

Electronic temperature detection is used to control the servo-motor and can be related to outside air temperature if desired.

The company says that the boilers have so far been examined by Nederlandse Gasunie, the independent Dutch authority, and the French and German gas corporations.

Findings were that the Econoflame boilers had as high an average efficiency at full output as "other combinations tested," including automatic burner/boiler arrangements.

But at outputs below maximum and particularly between 20 and 40 per cent output, the Econoflame was "by far the most efficient boiler examined."

The company is at Concord House, Brighton Road, Salfords, Surrey, RH1 5DX (02934 72744).

● SAFETY

Warns of gas or fire

DETECTION, alarm and subsequent remedial control actions are all catered for in equipment designed by GP-Elliott Electronic Systems to counter fire and gas incidents on offshore platforms.

The equipment, ordered by BP Petroleum Development for the Sullom Voe terminal in the Shetland Islands, will give the earliest possible warning of a fire or gas hazard, showing the locality of the problem and the status of the automatic fire fighting equipment.

Gas, flame, heat and smoke detectors are appropriately positioned throughout the terminal, the data they provide is processed, and the position shown on geographical wall displays. The information is continuously updated, providing progressive data on any incident.

If specific hazard conditions occur, the system initiates the release of halon, water or foam, and logic sequences can be made to start fire pumps and close down process plant.

The company is at 61 High Path, Merton, London SW19 (01-543 1241).

● PRINTING

Plate made in single operation

DIRECTOLITH, a new platemaking material from Agfa-Gevaert, allows a single sheet of material to be exposed from a paste-up or film original, processed for only 60 seconds and then used directly on an offset printing machine.

It will accept projected images from one side, producing a printing plate surface on the other, eliminating the need for optical reversal attachments on the camera: the image passes through the film by diffusion transfer and appears on the other side "the right way round" and in positive form.

Directolith thus entirely dispenses with any intermediate film stage, in which a negative is made and then a positive plate for use on the machine.

After exposure the plate is passed through a small inexpensive processor containing activator and a minute later is ready for checking before being put on the press.

The material is designed for quality runs up to about 20,000.

More from the company at 27, Great West Road, Brentford, Middlesex (01-560 2131).

● AGRICULTURE

Clearing the field

WHAT IS claimed to be an effective low cost device to fight bush fires (by quickly creating fire breaks) and clear farm fields has been developed by Valor International, in collaboration with Kruger National Park authorities in South Africa.

The device is a powerful mobile flame-thrower which sells at £59 and consists of a 2.25 or 1.15 metre long burner attached to a gas cylinder supply. It emits a two-metre jet of flame at a temperature of more than 1,900 degree C and will ignite damp undergrowth from a distance of three metres.

Heat intensity is infinitely variable and depends on pressure put on the trigger release. Fuel consumption works out at 2.75 kilogrammes of liquefied petroleum gas an hour.

Valor International says that tests in sugar cane regions show that two workers equipped with the gas operated flame throwers took one hour to clear a hectare of canefield, while it took six men a full day to do the same job with conventional firing equipment.

Full details of the equipment can be obtained from Valor International, Riverside House, Corney Road, Chiswick, W4. (01-995 4101).

● QUALITY CONTROL

Finds tiny faults in cans

IN HIGH volume can manufacturing — 150,000 cans per day or more—it is essential to maintain the highest standards of quality control, minute by minute. When checking for possible can leaks, the often-used dye penetrant and bubble test methods may require several minutes to indicate the vacuum tightness of a single can or can-end. During this time the production line continues to produce thousands of rejects.

Using Varian's Model 936 helium leak detectors for testing cans and can-ends, certain manufacturers are now maintaining a continuous control of their production lines: the 936 not only provides samplings, but a feedback in real time and a record of the yield per shift as well.

The 936 tester can detect leaks smaller than 1 millionth of a cubic centimeter per second.

The leak detection cycle begins when two can-ends are loaded on the test heads. By pushing two safety start buttons, a vacuum is produced on the bottom side of the can end, while two air-driven cylinders seal the top side. A predetermined mixture of compressed air and helium is delivered at the required pressure to simulate the real working conditions of the can. The helium will pass through cracks or holes at a constant flow rate, according to the size of the leak. The unit immediately reads the helium flow and provides a "good" or "reject" signal.

When the test is completed, the cylinders are raised and the can-ends are vented — all in a matter of seconds. No operator readings are required and the work takes place at 200 cans/hour.

Varian, Russell House, Molesley Road, Hersham, Walton-on-Thames. Walton 28786.

● MAINTENANCE

Easy access for cleaning

TWO MEN and their equipment to a total weight of 660 lbs (300 kgs) can be raised to a height of 20 ft (about 6 metres) in under half a minute using an electrically-powered three-stage platform put on the market by Whippendell Welding (Sales).

If necessary the unit can be trailer-mounted for towing behind any medium sized saloon car and should be attractive to all those concerned with cleaning, maintenance, repair and construction work on plant and buildings.

The four-wheeled base permits easy positioning and adjustable outriggers are swivelled out to give stability; platform size is 2.5 x 2.2 metres overall and with the outriggers the ground space occupied is 2.5 x 2.2 metres.

Known as the Heightshrinker FM500, the unit's driving motor can be fed from single or three phase supplies. But if no mains supply is available the platform can be raised by a self-sustaining hand winch. To give extended working space, two of the units can be coupled with a 13 ft (4 metre) bridge. More from the company at Ebberns Road, Hemel Hempstead, Hertfordshire (0442 3601).

● INSTRUMENTS

Carries out calibrations

INCLUDED IN Fluke's series of microprocessor-based digital thermometers is a unit for the calibration of both analogue and digital thermometers in laboratory and on-site applications.

Model Y2003 calibrator is used in conjunction with the 2190A microprocessor thermometer to form an integrated calibration system.

The calibrator generates an extremely stable, high-resolution dc voltage, which is supplied in parallel to both the 2190A and the instrument to be tested or calibrated. This voltage may then be adjusted to simulate temperatures over the total input range of the unit under test, thus providing an accurate and measurable comparison check with the 2190A.

Fluke International, Garnet Close, Watford WD2 4TT. 092 33066.

● ELECTRONICS

Automatic testing

STORNO has expanded its Camberley, Surrey, manufacturing facilities for radio communications equipment by installing a new department automatically to test digital assemblies for their correct functions, and also to locate faults at component level.

Included in the new department are facilities for automatic testing of complex logic circuit boards for use in large scale communication systems currently being installed by local authorities, nationalised industries and large, industrial organisations throughout the UK and the Middle East.

Equipment ranges from basic systems using programs punched on paper tape and operating directly under paper tape control, and other new hardware including interface mechanical test beds and visual display units.

Bulk of the automatic testing currently being undertaken at Camberley is associated with the manufacture of 900 TE800/5015 data terminal units. They are part of Storno's contract as main supplier for the world's largest fully automatic vehicle monitoring (AVM) system being installed on Dublin city bus services entire fleet of 800 buses carrying some 216m passengers each year.

Dublin AVM is based on a dual computer arrangement which automatically collects location data from each bus on a route. The results are presented on visual display units so that controllers in seven garages can see at a glance the actual, and scheduled position of all buses on a particular route. The system is due to be in full operation by the middle of next year and will provide greatly improved services.

Storno, Frimley Road, Camberley, Surrey GU16 5ES. 0276 29131.

● HYGIENE

Dries when the hands approach

MADE BY Steibel Eltron in Germany and available from the UK subsidiary at 25 Lyvedon Road, Brackmills, Northampton (0604 66421) is an electrical hand drier which is equipped with a proximity switch to start the unit when the hands are brought sufficiently close.

Suitable for office, factory and institutional premises, the unit should be of particular interest where hygiene is important, for example in hospitals, food plants and restaurants.

Known as the HTE, the device has a 1600 watt heater and a 56 watt fan, both operated by the proximity switch. A built-in timer switches the unit off after a few seconds of use. Measurements are 247 by 240 by 200 mm and the case is made of polycarbonate.

CONTRACTS AND TENDERS

NIGERIAN PORTS AUTHORITY

Tender for Hydrographic Surveys in Nigeria

Tenders are invited from reputable Hydrographic Survey companies for the Survey of Nigerian Ports, their Approaches Channels, and Estuaries as administered by the Nigerian Ports Authority.

2. Full details of all the survey areas and frequencies of surveys for each area together with existing charts of the area and the Port limits and necessary specifications are obtainable from:

The Principal Hydrographic Surveyor,
Nigerian Ports Authority,
26/28 Marina (3rd Floor),
Lagos.

on payment of a non-refundable deposit of N240.00.

3. All payments should be made to N.P.A. Finance Department, 26/28 Marina (3rd Floor), Lagos, and receipts obtained presented before Tender specifications and Charts are released to Tenderers. Tender forms and charts are also obtainable from the Nigerian Ports Authority's Representative, Mansfield House, 3rd Floor, Room 34-37, 376-379 Strand, London, W.C.2, after payment of the equivalent of N240.00.

4. Completed Tender Documents in sealed envelopes marked "Confidential —Tender for Hydrographic Surveys in Nigeria" should be returned to the Secretary, Nigerian Ports Authority, 26/28 Marina, Lagos, to reach him not later than 12.00 noon on the 30th September, 1978.

5. The duration of the contract will be for one year.

6. This Tender may be cancelled or withdrawn or altered without any reason given for so doing. Responsibility will not be accepted for any loss or losses incurred by Tenderers in preparing or submitting their Tenders. The Authority is not bound to accept the lowest bidder and will not enter into correspondence with unsuccessful Tenderers.

(J. E. Kalu),
Ag. Secretary to the Authority

N.P.A. NOTICE No. 3130.
DATED 25th JULY, 1978.

PLANT & MACHINERY SALES

Description	Telephone
100 TON CAPACITY COINING PRESS by Taylor and Challen—virtually unused—fully automatic—160 s.p.m. x 24 mm stroke.	0902 42541/2/3 Telex 336414
IN LINE MACHINE for simultaneous surface milling both sides of continuous and semi-continuous cast non-ferrous strip up to 16" wide.	0902 42541/2/3 Telex 336414
9 DIE, 1750 FT/MIN SLIP TYPE ROD DRAWING MACHINE equipped with 3 speed 200 hp drive, 20" horizontal draw blocks. 22" vertical collecting block and 1000 lb spooler. (Max. inlet 9 mm finishing down to 1.6 mm copper and aluminium.)	0902 42541/2/3 Telex 336414
8 BLOCK (400 mm) IN LINE, NONSLIP WIRE DRAWING MACHINE in excellent condition 0/2000ft/min. variable speed 10 hp per block (1966)	0902 42541/2/3 Telex 336414
24" DIAMETER HORIZONTAL BULL BLOCK By Farmer Norton (1972).	0902 42541/2/3 Telex 336414
SLITTING LINE 500 mm x 3 mm x 3 ton capacity.	
TWO VARIABLE SPEED FOUR HIGH ROLLING MILLS Ex. 6.50" wide razor blade strip production.	0902 42541/2/3 Telex 336414
MODERN USED ROLLING MILLS, wire rod and tube drawing plant — roll forming machines — slitting — flattening and cut-to-length lines — cold saws — presses — guillotines, etc.	0902 42541/2/3 Telex 336414
1974 FULLY AUTOMATED COLD SAW by Noble & Lund with batch control.	0902 42541/2/3 Telex 336414
1970 CUT-TO-LENGTH LINE max. capacity 1000 mm 2 mm x 7 tonne coil fully overhauled and in excellent condition.	0902 42541/2/3 Telex 336414
1965 TREBLE DRAFT GRAVITY WIRE DRAWING MACHINE by Farmer Norton 27"—29"—31" diameter drawblocks.	0902 42541/2/3 Telex 336414
STRIP FLATTEN AND CUT-TO-LENGTH LINE by A. R. M. Max capacity 750 mm x 3 mm.	0902 42541/2/3 Telex 336414
6 BLOCK WIRE DRAWING MACHINE equipped with 22" dia. x 25 hp Drawblocks.	0902 42541/2/3 Telex 336414
2 15 DIE MS4 WIRE DRAWING MACHINES 5.000ft/Min with spoolers by Marshal Richards	0902 42541/2/3 Telex 336414
3 CWT MASSEY FORGING HAMMER —pneumatic single blow.	0902 42541/2/3 Telex 336414
9 ROLL FLATTENING MACHINE 1.700 mm wide	0902 42541/2/3 Telex 336414
7 ROLL FLATTENING MACHINE 965 mm wide.	0902 42541/2/3 Telex 336414
COLES MOBILE YARD CRANE 6-ton capacity lattice jib.	0902 42541/2/3 Telex 336414
RWF TWO STAND WIRE FLATTENING AND STRIP ROLLING LINE 10" x 8" rolls x 75 hp per roll stand. Complete with edging rolls, turks head flaking and fixed recoiler, air guaging etc. Variable line speed 0/750 ft/min. and 0/1500 ft/min.	0902 42541/2/3 Telex 336414
NARROW STRIP STRAIGHTENING AND CUT-TO-LENGTH MACHINE (1973) by Thompson and Munroe.	0902 42541/2/3 Telex 336414
SCHULER 200 TON HIGH SPEED BLANKING PRESS. Bed 48" x 40" 200 spn. Double roll feed stroke 35 mm. excellent condition	01-928 3131 Telex 261771
TAYLOR & CHALLEN No. 6 DOUBLE ACTION DEEP DRAWING PRESS. Condition as new.	01-928 3131 Telex 261771
VICKERS 200 TON POWER PRESS. Bed 40" x 36". Stroke 8". NEW COND	01-928 3131 Telex 261771
MACHINING CENTRE. Capacity 5ft x 4ft x 3ft. 5 Axes continuous path 51 automatic tool changes. 5 tons main table load. Main motor 27 hp. Had less than one year's use and in almost new condition. For sale at one third of new price.	01-928 3131 Telex 261771
WICKMAN 2¼ 6SP AUTOMATICS 1961 and 1963. EXCELLENT CONDITION.	01-928 3131 Telex 261771
4,000 TON HYDRAULIC PRESS. Upstroke between columns 92" x 52" daylight 51". stroke 30"	01-928 3131 Telex 261771
ANKERWERK 400 TON INJECTION MOULDER. Reconditioned.	01-928 3131 Telex 261771
UPSET FORGING MACHINE 4" 750 tons upset pressure.	01-928 3131 Telex 261771
200 TON PRESS. Double action bed area 132" x 84"	01-928 3131 Telex 261771
2,000 TON PRESS. Double action bed area 132" x 84".	01-928 3131 Telex 261771
WICKMAN 1¼" Automatics 6 Spindle.	Telex 261771

WANTED

Description	Telephone
MODERN USED ROLLING MILLS, wire rod and tube drawing plant—roll forming machines—slitting—flattening and cut-to-length lines—cold saws—presses—guillotines, etc.	0902 42541/2/3 Telex 336414

The Executive's and Office World

EDITED BY CHRISTOPHER LORENZ

The man who gave his company away to the workforce

BY ROBERT OAKESHOTT

TO CALL men to repentance first . . . but then also . . . to give them the opportunity of showing their repentance and bringing forth fruits. This is my idea of a tailors' association."

Thus F. D. Maurice, one of the leading Christian Socialists of the last century, explained his aims in promoting the establishment in various craft industries of what were then called associations of labourers, and what we would refer to nowadays as Workers' Co-ops.

Ernest Bader, who more or less gave the successful company he had built up to his workforce, sees himself mainly as a Christian Socialist. And though in contrast to Bader's success the enterprises sponsored by Maurice and his friends ended uniformly in disaster, there are specific parallels in the outlook of the two men.

Religion

Just as many of us will feel uneasy about Maurice's attempt to link religion with production, so, Susannah Hoe tells us in her new book, there have been those among the former employees of the "man who gave his company away" who have resented his attempts to mix the world of work with the world of prayer: "People used to say 'They're up there praying while we get on with their work'."

The institutionalised, if voluntary, Monday prayer meetings, briefly attempted at Scott Bader in the early 1950s, which provoked that reaction, were just one expression of the enduring preoccupation with the next world which Ernest Bader has always coupled with his enduring preoccupation with successful business. . .

Ernest Bader, a naturalised Englishman of Swiss farming parents, started on the road to business success when he set up as a merchant and trader in chemicals in 1923. The business was called Scott Bader, his wife having been born Dora Scott.

Twenty eight years later, after a move from London to Northamptonshire and a switch from trading to manufacturing chemicals, the Bader family made a present of 90 per cent of the enterprise's shares to the Scott Bader Commonwealth—a charitable holding company in the direction of which those of the company's workforce who chose to take up membership became entitled to participate.

Then, in 1961, the family sold the remaining 10 per cent of its original shareholding to the Commonwealth, and Scott Bader became the pioneering "common ownership" company in the UK.

The phrase "common ownership" was chosen deliberately to reflect the fact that there are no individually owned shares in the transformed Scott Bader. The Commonwealth's members own the enterprise as a collective. When they leave or retire they have no individual shares to sell, just as when they join they have no individual shares to buy. Ownership is "neutralised."

In this respect, as in some others, the Scott Bader "common ownership company" differs from both the traditional "workers' co-ops" which go back to the last century, and from the highly successful group of mainly industrial co-ops centred on the small steel making town of Mondragon in the Basque Province of Spain.

By 1953, when the Bader family took its first and major step in divesting itself of ownership, Scott Bader was already starting to move up from the small to the medium sized enterprise category. It was then employing 151 people, with a turnover of £625,000 and net profits of £72,000. Twenty five years later, in 1976, the corresponding numbers were 420, £14m and £1.23m.

Of course, for most of that quarter of a century chemicals were a strong market. All the same, at the very least, the growth record is respectable by private capitalist standards. Moreover, by a mixture of the far sighted purchase of U.S. licences immediately after the war, and its own research and development work, the company has achieved a position of leadership in the UK market for unsaturated polyester resins.

Thus, whatever else is true, it is clear that the controlled divestment by former private owners of the ownership of a successful business need not lead to disaster. Admittedly the lesson is not new. The experience of the John Lewis partnership points in the same direction and predates that of Scott Bader by more than a couple of decades. All the same, to have the lesson repeated for a medium sized manufacturing enterprise is a matter of obvious consequence and value.

On the other hand there is a sharp contrast, in the Scott Bader experience, between the speed with which ownership was transferred by the Bader family and the relative control which it still retains. The company's constitutional arrangements are neither simple nor static. But Godric Bader, the founder's son, remains in 1978 as chairman for life and still appoints, subject to democratic approval, a majority of the board of directors of the operating company—behind which the Commonwealth stands as a kind of "supervisory" holding company.

Scott Bader has frequently been criticised for this state of affairs, and the position has been compared with that of a colony in the transition to independence, when the colonial Governor retains crucial entrenched powers.

The criticism seems both just and unjust. It is just in so far as the company's power structure still reflects the kind of high minded and top downwards paternalism which characterised the "giving away" of the company in the first place. It is unjust to the extent that it overlooks the real difficulty which must face any democratic enterprise or workers' co-op—the difficulty of reconciling the need for ultimate workforce control on the one hand and the need for efficient professional management on the other.

Ernest Bader—a pioneer in the field of common ownership in Britain

There is, to my mind, a more serious criticism of the "common ownership" model which has been pioneered by Ernest Bader and his family. And though it has had various, mainly smaller but not altogether unsuccessful imitators, I am doubtful whether it ever could—or indeed should—be widely replicated.

And not because it seems improbable that successful entrepreneurs are ever likely to come forward in large numbers to give their companies away to their workforces. The point is rather different. Common ownership may appeal to the high minded—whether to those in the traditions of the Webbs, or of Ghandi or of Mr. Gladstone. But it over-emphasises the social (that is group member) needs of ordinary workers at the expense of their individual needs. It may be all very well for the saintly or the hair-shirted. But it may be an inefficient motivator of ordinary people, whose altruism needs to be encouraged by a very palpable extra ingredient of self-interest.

That is why I would imagine that the arrangements of the Mondragon co-operatives—and some others—which seek to combine elements of both individual and collective ownership in a most sophisticated and judicious blend, are likely in the long run to prove a better bet than those which Scott Bader has pioneered.

But whether it is the Scott Bader or the Mondragon model—or another version which comes to prevail if, as some believe, a workers' co-operative sector starts to develop over the next 10 years, the debt of future co-operators to Ernest Bader will remain considerable.

For by his action in pioneering common ownership he has probably done more in this country than anyone else to encourage the search for new and more human enterprise structures. Moreover, because he is an extraordinary man and because of the element of theatre in his family's "gift" of their company, his work has inevitably attracted more attention than would otherwise have been the case.

Complex

Susannah Hoe has rightly not attempted to write a commercial history of Scott Bader. And though some will find her excessively preoccupied with Ernest Bader's complex personality and motivations, I would not. No doubt in the long run it is for the results of his work that he will be remembered. But, as this book clearly shows, you can never really separate the man from his actions.

If Ernest Bader was an ordinary man—or anyway just an ordinary entrepreneur—the story of the company he founded and later gave away would have been very different and far less interesting. Both the author and the publisher are to be commended for giving us a far from idealised picture of a quite exceptional man.

The Man Who Gave His Company Away. A biography of Ernest Bader, founder of the Scott Bader Commonwealth by Susannah Hoe and with a foreword by the late E. F. Schumacher. Heinemann, £5.95

Encouraging businessmen to show a bold TV face

BY JOHN SWINFIELD

BUSINESSMEN do not always pass the screen test, as was suggested in last Monday's article. Unlike Nicholas Faith, who worked on Thames TV's "Time for Business," and was the author of last week's article, the team behind Anglia's "Enterprise" programme has found businessmen similar to most other people in their attitude to television.

We have not found them unduly sensitive or shy. Even when tackled about delicate or embarrassing issues, they have been generally helpful.

One of the reasons may be that, in contrast with Time for Business, Enterprise has recently been transmitted at a peak viewing hour—seven pm, having been brought forward from 10.30 pm in spite of the commercial pressures on Independent Television.

This went down well with businessmen. They liked being considered important enough to warrant maximum exposure at peak time, rather than being relegated to the usual midnight hour.

But there are other, more fundamental ways, in which top businessmen can be encouraged to appear on the screen.

Cynicism

Programme makers sometimes forget that other worlds are different from television, business particularly so.

Mild cynicism, the language of journalism, may keep practising reporters sane, but it can be taken amiss in business, where standards, dress, outlook, everything, are usually the opposite of those accepted as the norm in television.

It is often the small arrogances that offend: a young interviewer with little more to offer than cockiness and a degree, who pays insufficient regard to a man's age and experience. Or too many "pundits" who preach at businessmen but never, of course, have to put their money where their mouths are. The line between being informed and a know-all is blurred.

And yet there is no doubt that Nicholas Faith is in the majority when he complains about businessmen's reluctance to appear on television.

When we took Leslie Porter, Tesco's chairman, on a surprise tour of inspection of one of his stores (he described one display as a "pig's breakfast" and a department as a "bloody disaster") one critic wrote about the piece with such awe that it was as though we had just secured the world's first exclusive with the Deity.

Sometimes powerful people play hide and seek behind lines of secretaries and public relations men. But seeking is half the fun of journalism. Once located, the quarry needs approaching honestly—perhaps more honestly than most, because he usually has more to lose—and to be treated with common courtesy.

Businessmen get sore when a programme is interested only in trouble at t'mill. For months, perhaps a lifetime, they quietly prosper or fester with no one giving tuppence for their fortunes. But a spot of trouble brings an onslaught of cameras and microphones.

It is when programmes are short of resources that some of the real sins are committed. A "story" breaks, the programme needs an instant pundit, and so a researcher rings up a light-bulb maker to talk about the whole wide world of the international electrical industry. The light-bulb maker nips down to the studio—and realises, too late, that he has made a mistake by coming along at all.

Cross any member of the business establishment and he will put the word round. But, if he respects your approach, he may also be helpful in prompting other members to appear.

One has to guard against producing programmes that merely curry favour. On the other hand, it should not be one's first intention to try to do a hatchet job.

Villain

Business television breeds value judgments. It seems to attract people who want to be in political or sociological television. They expect interviewees to slot into the category of villain or hero.

Many people in current affairs have forgotten that they are merely messengers, to provide a platform for other people's views. They should not hog microphones themselves.

Perhaps Enterprise has secured a galaxy of known and unknown names because they know they will be top of the bill. Some programme makers seem to place most emphasis on having Uncle Tom Cobley, financial tipsters, economic seers and that ilk in the studio, all taking precedence over the poor blighters who actually have to put their money on the line.

This attitude has given businessmen an understandable chip on their collective shoulder. On Enterprise we cater for real businessmen, not the men who make a business out of talking about businessmen.

Among the "names" so far have been Sir Maurice Laing, of the Laing group, discussing nationalisation, John Sainsbury on the supermarket war, Victor Matthews of Trafalgar House, estimating that he could say goodbye to 30-40 per cent of his newspaper workers, Sir Marcus Sieff of Marks and Spencer, Selim Zilkha (Mothercare), Laurie Barratt, Britain's biggest private housebuilder, and Clive Sinclair of micro-TV fame. The list continues.

So all is not doom and gloom. Businessmen can speak interestingly and informatively to an enormous audience. All you have to do is spend a lot of time giving them a little confidence.

John Swinfield, formerly of BBC 2's "Money Programme," is the editor of the Anglia-TV programme, Enterprise.

Building and Civil Engineering

£350m airport project

A MAJOR expansion of Baghdad International Airport has been proposed. Likely cost has been put at over £350m.

One of the first moves has been the appointment of Scott Wilson, Kirkpatrick and Partners and Brownrigg and Turner by Maunsell Consultants to assist the latter with preparation of tender documents.

Facilities to be provided include a 4,000 metre runway, four passenger terminals, control tower and communications building, a cargo terminal, a "very, very important personages" terminal, various ancillary buildings, roads and services.

Other members of the consultants team include, Dunwoody and Partners, services engineers, and British Airports International.

Completion of tender documentation is planned for November and work on site is expected to start early in 1979.

£8½m awards to Marriott

FOUR contracts worth over £8½m have been won by Robert Marriott (French Kier Group).

For Northampton Development Corporation, the company is to build 264 dwellings at Camp Hill, Northampton. This contract—worth over £3.1m—involves roads, services and other external work in addition to the dwellings. Work is due to start on September 4.

At Milton Keynes Marriott is to undertake a £2.9m contract for the construction of 218 dwellings, including roads, services and external works at Heelands for the Development Corporation. This contract starts on September 11 and will take 86 weeks to complete.

For Corby Development Corporation, Marriott will build four factory units providing over 6,000 square metres of floor space, including office accommodation. The contract is worth £535,000.

The fourth contract, worth about £2m is for the construction of an abattoir complex at Crick, Northamptonshire for Midland Meat Packers.

£3m Sir R. McAlpine award

A CONTRACT worth nearly £3m has gone to Sir Robert McAlpine and Sons for the construction of foundations, piperacks, roads and services at the fluid catalytic cracking unit being built at Pembroke, South Wales, for the Pembroke Cracking Company.

Work which is being carried out for Snamprogetti is now starting with completion programmed for late 1980.

Work worth over £3m

GEORGE WIMPEY has won a contract in a "design and build" competition for an exhibition hall to be built for the Royal Highland and Agricultural Society of Scotland on its permanent showground at Ingliston, just outside of Edinburgh.

The building will be about 100 metres long, 60 metres wide and 8.5 metres high and will have a full length main exhibition hall, 42 metres wide, flanked by ancillary accommodation, including restaurants, kitchens, bars, changing rooms and toilets. A 9-metre wide gallery, located above this will run the full length on each side of the main hall. The contract, valued at £1.2m is due for completion before The Royal Highland Show in July 1979.

Down in the South Wimpey has been awarded two contracts jointly valued at over £1.6m.

The larger worth over £1m is for the Swaythling Housing Society for the modernisation of 148 two-storey houses in Southampton. The other is for the Borough Council of Basingstoke and Deane for site preparation for the second phase of the Basingstoke town centre. This is worth over £648,000.

From the City of Salford Corporation, Wimpey has won a £320,000 contract for the modernisation of 80 council dwellings at Abbey Drive, Swinton, Lancs.

£1m worth for Mears

THREE contracts, together valued at about £1m, have been awarded to Mears Construction.

Awarded by the City of Liverpool, the largest is worth £357,000 and involves the construction of a two-storey health centre including a caretaker's flat together with drainage and external works.

A second health centre is to be built by Mears for the Hampshire Area Health Authority in Lordshill, Southampton. This contract is worth £286,000.

The third contract, valued at £346,000, is being carried out for the Maritime Housing Association in Liverpool. It calls for the construction, at Birkenhead, of 33 dwellings made up of terraced houses and flats.

First stage of pump factory

THE FIRST phase of the Grundfos Pump Group's factory complex at Sunderland, Tyne and Wear, has been awarded to Fairclough Construction.

Worth £1.8m, the contract is for the provision of 1,482 sq. metres of office space, 1,974 sq. metres of ancillary space and a production area of 5,040 sq. metres.

Fairclough is expected to complete phase one in October next year. When the overall complex is completed it will be one of the largest pump factories in the world.

Architects for the project are C. F. Muller, of Arhuus, Denmark, in association with Roger Hobbs-John Corbey and Associates. Henry Cooper and Sons are the quantity surveyors.

Pumps for Libya

ABOUT £1.2m worth of pumps and associated equipment for a big sewage disposal scheme in Libya is to be supplied by Sigmund Pulsometer Projects, a member of the SPP Group of Reading Berks.

The scheme, which is being supervised by C. H. Dobbie and Partners, covers the three towns, Zwarah, El Jmil and Regdaleen. It allows for a present population of 30,000 increasing to 90,000 and includes construction of a new regional sewage treatment works as well as nine pumping stations in which the equipment is to be installed.

The main civil engineering contractor is the Arab Union Contracting Company of Tripoli.

Homes in East Anglia

GOUGH COOPER and Co. has been awarded a £870,503 contract to build 80 homes for the Orbit General Housing Association on 6.7 acres at Stoke Park Drive, Ipswich.

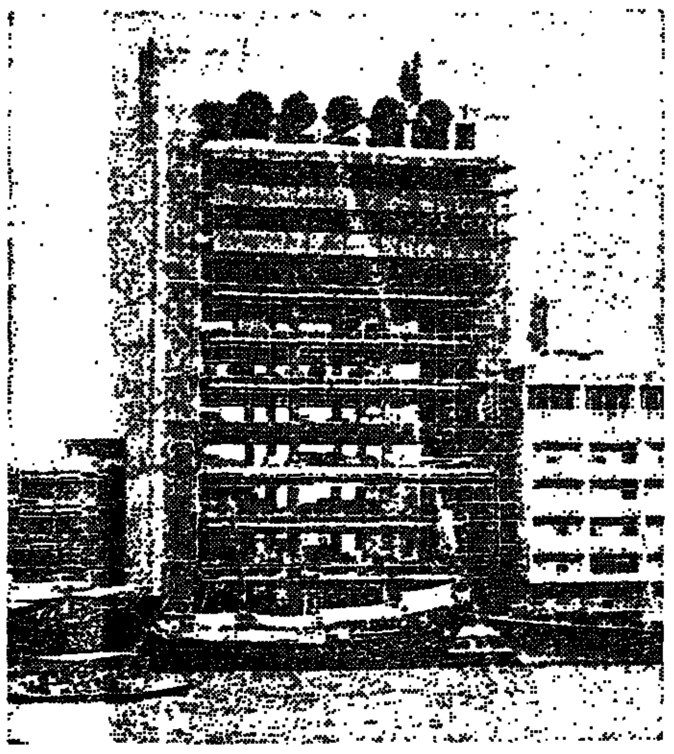
Work on the site, which is expected to provide 42 houses and 38 flats, has just begun and is scheduled for completion at the end of the year.

The company has just completed two other East Anglian projects for the same Housing Association. In a £1.2m scheme at Lowestoft, 145 houses and flats were provided. While at Hellesdon in Norwich 80 homes have been completed under a £651,000 contract.

Piling in Egypt

ABOUT 4,000 steel-encased and cast in-place concrete piles for grain storage sites in Cairo and Egypt are to be driven by Raymond International of Delaware, Inc, a subsidiary of Raymond International (UK).

Work on the £2m sub-contract, for the General Authority for Supply Commodities, an Egyptian Government agency, is to be completed before the end of this year.



The structure of this 11-storey building for the Bank of Credit and Commerce International in Dubai has just been completed by Bernard Sunley and Sons. The building will be faced in blue glass and is due for completion in February next year. The architect is Fitzroy Robinson and Partners.

Housing the workers

INTERNATIONAL System Buildings of Wyllie, Gwent, has been awarded a £¾m contract for the supply of accommodation for workers in Kuwait.

The "village" for 2,800 men initially, will consist of residential units, dining quarters, TV lounge, offices, supermarket, barber's shop, recreation areas and ancillary service units together with bungalows and leisure units. All the units are transportable and are being sited 25km from the city itself.

The main contractor, Impressa Castelli, is supervising erection for International Construction, a Kuwait company.

Merchant's new depot

WORK HAS started on a new West Midlands regional distribution depot for Ruymp on a Wolverhampton Borough Council development site in Neachells Lane, Willenhall, Staffs.

The £¾m depot for this builders and plumbers merchant is being built by Tarmac in time to start trading in April next year. It will include a large warehouse and showroom and will be the twelfth depot for Ruymp, which is part of the Coalite and Chemical Products Group.

Renovation work commended

AMONG THE 30 buildings which have received awards and commendations in this year's RIBA awards scheme is a most interesting piece of renovation and reconstruction in Leeds.

This is St. Paul's House, Park Square, now enjoying a new existence as offices. It is recognised as one of the finest surviving examples of high Victorian commercial architecture. The structure was designed in 1878 by Thomas Ambler as a combined warehouse, factory and showroom in exotic Moorish Palace style.

By the time work started on its restoration, it had reached an advanced state of decay. The designers were called on to restore the shell to its original state and to construct a new interior. Their solution entailed the introduction of new floors, aligned with the existing sills and transomes; new internal planning with open plan floors, a vertical circulation and service core and a new entrance facing Park Square.

Most of the parapets, minarets, architraves and strong courses have been replaced and newly cast in moulds taken from pieces of the original terra cotta.

The jury's assessment stated, inter alia, that "The rehabilitation of St. Paul's House provides the right celebration for the building's centenary and is a fine example of the way to restore buildings . . . The extensive restoration is not apparent and even the substitution of fibre-glass reinforced plastic for terra cotta has been done with deceptive skill and care."

The architects for the scheme are Booth, Shaw and Partners (job architect John P. Denison) and the main contractor is Fairclough Building.

H. A. N. BROCKMAN

Workshops and car showroom

A START has been made on new showrooms and workshops in Bishopsgate Road, Eastleigh, Hants, for David J. Sparshatt: a main Mercedes dealer. The development is by Hillspan Macdonald Developments of Eastleigh.

Main building works, as well as site piling, will be undertaken by A. E. Jukes and Son and steelwork and sheeting is to be supplied by Hillspan.

Contract value is over £210,000 and work is scheduled for completion in early spring, 1979.

Awards to Taylor Woodrow

TWO warehouses with accompanying offices are to be built on the Nursling Estate, Southampton, by Taylor Woodrow Construction.

The contract worth £450,000, covers construction of two adjacent units. One is being built for Share Drug Stores and the other for Wilkinson Transport. The architects are D. S. Tucker and Partners.

Under a £100,000 contract Myton, a member of the Taylor Woodrow Group, is to carry out alterations to the entrance hall of Aldwych House, London, WC2, for the Legal and General Assurance Society.

Another job for Taylor Woodrow is the rehousing of a branch of the Midland Bank at Kings Reach Development, Stamford Street, London, SE1.

IN BRIEF

● The Contract Services Division of GKN Mills Building Services has been awarded two contracts totalling over £180,000. They are for access scaffolding and other temporary works for the development of the 3½-acre Tottenham Court Road, London, site for EMI, and for scaffolding for London Borough of Camden.

● A computer room is to be constructed at Peggy Middleton House, Woolwich New Road, for the London Borough of Greenwich under a £171,000 contract awarded to John Laing Construction.

● New Ideal Homes has been awarded a contract valued at nearly £500,000 by the Greater London Council for the upgrading and modernisation of 200 pre-war flats in the Oval area, in Lambeth, South London.

● Sales of Sambron rough terrain materials handlers reached record levels in June and July with orders approaching £1.5m. The High Wycombe, Bucks, based company has forward orders in house worth over £1m.

LOMBARD

Packages with strings

BY ARTHUR SANDLES

FOR THOSE who like holidays with a touch of disaster about them this has been a bumper summer. As if the rain in Britain and much of continental Europe were not enough, there have been the queues for trans-Atlantic flights and considerable delays for those hoping to reach sunnier climes on the Mediterranean coastlines.

When these delays reached into days rather than hours the whole question of consumer rights was raised yet again. It seems once more that law and justice may not be the same.

As it has been interpreted so far the law is straightforward. If a tour operator has done his best to fulfil the contract, the holidaymaker has no redress should the time of departure or return be changed. Since recent delays have usually been caused by actions way beyond its control, provided the flight takes off as soon as it can, a tour company has carried out its side of the bargain. If the holidaymaker decides that a 24-hour wait is too much for the family group and goes home it is he who is in breach of contract, not the tour company.

The major disagreement with this view is the opinion that a delay of, say, 48 hours, in the departure of a one week tour is a *fundamental* breach of contract, which puts it into a different legal league and could make the operator responsible, whoever was to blame. This view has yet to be tested in the courts.

Dilemmas

The dilemmas are these: Should a couple with two babies in arms be forced to wait a day or more in a crowded airport with no idea when their flight might leave and not have the right to say "enough is enough?" Should a tour operator who insists on customers turning up at the airport for a pre-arranged departure time on a full catering holiday not give that full catering, even if it happens to be in the airport terminal?

But, since the action of the French air traffic controllers was designed to disrupt just such arrangements as those of Britons heading for Spain, should the tour companies be burdened with the hefty additional costs which resulted? Should passengers be insulated against the impact of industrial action? Could the tour companies build in sufficient profit margin to cover themselves against such problems; and if they did, what would happen to that money in years when everything went smoothly?

Whatever the law says, justice might suggest that the rough edges could be taken off this situation. The first point that has to be made, however, is that there is no action that can be taken which can give either complete holidays or complete profit margins to the sides concerned.

Another important aspect of any attempted solution is that a holiday, while a major expense, is not like the purchase of a house, car or carpets. If it is not satisfactory there is no residual value and no defective part which can be produced in court for examination. A lost holiday is a total loss, either to the consumer who cannot take it again, or to the operator, who cannot sell it again.

The cost of total protection—a full refund if the holiday is not precisely what you ordered—might be prohibitive. A premium of £50—£100 for a peak season holiday this year has been suggested. However, the cost of a built-in rate of compensation might be acceptable. In such a scheme a small premium added to the total holiday price would go into a central fund which would then compensate holidaymakers for major delays. Up to six hours delay would get you nothing but a cup of coffee. Over six hours you might get £1 an hour compensation and the right to cancel with full refund if the delay was more than 36 hours. In a year without delays the money raised would go into next year's pot and there might not need to be premiums.

The main argument against such a scheme is that consumerism has already gone too far in the travel industry and further attempts to protect the traveller against the normal problems of transportation smacks of feather bedding. Any additional fees are seen as a bad thing in a highly price-sensitive business.

Such opposition is, of course, illogical. It might be argued with equal strength that travel, like other commodities, should be paid for on receipt rather than in advance, and that tour operators, like farmers, should bear the costs of Acts of God and Air Traffic Controllers with such fortitude as they can muster.

Clearly it should be open to families to withdraw from a holiday contract once it is clear that there are serious faults in the package, whatever the cause. A delay of more than 24 hours, and the threat of similar delays on the return voyage, might be considered just such a fault.

THE WEEK IN THE COURTS

Judges did well to sit in judgment on themselves

BY JUSTINIAN

JUDGES in England behave as a breed apart. One moment they are practitioners at the Bar, engaging in the hurly-burly of fighting their clients' forensic battles and mixing on ordinary terms with their colleagues and others.

The next moment they are pulled out of the scrum, a whistle is thrust into their hands and they become the referees. Their existence thereafter merely endorses the abruptness of their departure from the scene of professional lives ranging over 25 or more years and their removal to Olympian aloofness.

When functioning away from home which as High Court judges they do for nearly half the law year, they reside in accommodation occupied exclusively by themselves, with their own domestic staff.

No longer do they frequent the ordinary public places—the public houses, the wine bars, the coffee shops—that they frequented as barristers. Their circle of acquaintances is at once restricted.

Given the unique dress of robes and wigs that distinguishes them from the rest of us, it is little wonder that the public impression is created that they are not as other men are. Indeed, the donning of the judicial mantle does impose constraints that other men do not undergo.

But what of the time, at the end of a day in court, when the wigs and robes are put aside?

The public is not disabused of this image of separateness, or self-imposed apartheid, by the rigid adherence to the convention that judges do not engage in public debate.

Their pronouncements on the social scene are restricted to what they may sometimes injudiciously and inappropriately, say from the Bench, to the occasional lecture to an academic audience or learned society, to an article in a recognised law journal, or even, very exceptionally, in a serious newspaper (Lord Scarman once indulged his advocacy of a Bill of Rights in the Press).

Those instances apart, judicial silence out of court is severely maintained. The judges' isolation is well nigh complete.

As a result, it was not until last Saturday that judges had ever taken part in a radio broadcast discussing their role and the development of the law, talking about the difficulties of judging and even answering the commonly voiced accusation that they are out of touch with everyday life.

That is why the Radio 4 programme in place of The Week in Parliament, with Hugo Young, political editor of the Sunday Times, interviewing some judges, was of such special significance.

The convention of judicial non-participation in public affairs out of court has been broken. We can now expect to see and hear our judges, like any other member of the public, engaging in public debate. Why has the the breakthrough taken so long?

Much of it has to do with recruitment to the Bench. Until recent times, appointments were made exclusively from a handful of highly successful advocates reared and nurtured in monastic style—prep school, public school, Oxbridge and the Temple. This cloistered syndrome has been eroded in recent years by a larger judiciary necessitating recruitment from a much broader band of barristers.

Momentous

But more important has been the notion that judicial independence could be maintained only by the cotton wool in which the higher level of judges are, almost literally wrapped. That was never true, and the modern judge has long since ceased to believe that his independence is sustained only by his public isolation.

Financial and personal integrity are elementary qualifications for judicial office. They are not put in jeopardy once the man becomes a judge, and they do not require support by isolating him from ordinary mortals.

Much of the change in attitude is reflected in what the judges had to say in the first momentous broadcast. Mr. Justice Templeman, a Chancery judge and the judicial member on the Royal Commission on Legal Services, was the most sprightly speaker and he was forthcoming about a judge's role.

He instanced three pitfalls for anybody sitting in the seat of judgement — complacency, irritability, and the illusion of infallibility. It was refreshing to hear a senior judge publicly acknowledging that it is all too easy for a member of the bench to say to himself "that he is a judge and a good judge too." That Gilbertian sentiment reflects the degree of self-adulation that English judges have been addicted to and which is unrivalled in any other profession.

The famous words of Lord Hewart, the Lord Chief Justice, who at the Lord Mayor's banquet in 1936 said: "His Majesty's judges are satisfied with the almost universal admiration in which they are held" have had their echo in recent years.

During the passage of the Courts Bill in 1971, Lord Hailsham, then Lord Chancellor, described English justice as "one of the glories of our country, and, indeed, of modern civilisation," adding that "we must not inadvertently do anything to devalue the quality of the justice for which we have become famous, its notable impartiality, above all the independence, quality and integrity of its judges and of the lawyers of both branches of the profession.

"I do not believe," he continued, "that the pride which we take in our judges or in our lawyers is either false or fortuitous." In Lord Hailsham's judgment "Our courts are better, our judges are better, and our lawyers are better than those of other nations, however good those may be." Can one imagine, for example, the president of the British Medical Association eulogising his professional brethren in that way?

Mr. Justice Templeman would, one suspects, be much more circumspect in his evaluation of English justice; and would be very hesitant to compare the quality of our justice with, say, that of the Dutch.

The checks upon judges who succumb to the pitfalls are not as salutary as for others. A judge ordinarily sits alone, king in his own courtroom, with no one of equal status to upbraid him for his pontification or tactlessness. An appeal court is available only to correct his errors of judgment, not his manner of judging.

The most revealing remark came from Mr. Justice Peter Pain who summed up the likely approach of to-morrow's judiciary, prompted by this programme.

On appointment a lot of people make a fuss of the judge. This can inflate his importance beyond what is socially desirable.

"What you have to try to master is that when you are in court you are doing a very important job but when you are out of court you are just the same person as you have always been."

● Justinian now goes on holiday. His next column is due to appear on October 2.

CRICKET BY TREVOR BAILEY

England batting showing chinks

ALTHOUGH ENGLAND have every reason to be well pleased with the events of this summer—Pakistan have been annihilated, and at Trent Bridge New Zealand are following on, well on the way to their second defeat in the series—it would be easy to over-estimate the significance of it all.

Pakistan, drenched and dispirited by the rain, without their four most accomplished and experienced players, who had defected to Packer, and with an attack weaker than most counties, provided undistinguished opposition.

It was hoped that the Kiwis, having achieved that elusive first victory last winter, would provide a sterner test, but, while displaying greater determination, they have proved weaker than many of the previous teams New Zealand have sent here, teams who never won a Test, let alone a series.

The New Zealanders' attack is built around Hadlee, one of the best fast bowlers they have produced; Bracewell, still very much in the apprentice stage but destined to become outstanding; Cairns, a medium-pace in-swinger who would make a good county third seamer; the swerve of Congdon at gentle medium-pace, useful for quiet periods and the occasional wicket but lacking genuine penetration; and Boock, a spinner of considerable promise, though there must be at least five better left-armers on the current county circuit.

There had to be a question-mark against the New Zealand batting line-up. Howarth, Parker and Wright fall into the competent county player category, though Wright could be destined for a higher rating.

Their captain, Burgess, has not struck his best form, Congdon, still their most accomplished technician, is in his 40s. Anderson has so far failed to master a fine England opening attack, and Edgar remains an exciting prospect.

It therefore makes it all the sadder that Turner, their one batsman of true international calibre, should be scoring his runs for Worcestershire (a century against Essex on a difficult pitch on Friday and a half-century against Kent on Saturday) instead of for New Zealand.

Although the visitors' fielding has been athletic, too many close catches have been put down. The wicket-keeping has been substandard, and the field placings often naive.

The deficiencies of both touring teams this summer have tended to camouflage chinks in the England batting. Averages can be misleading, but it is noticeable that year after year, good batsmen score a great many runs and are near the top of the averages, while the best bowlers regularly make a substantial haul of wickets at a reasonable cost.

Stroke makers

The first-class batting averages published on Saturday were especially revealing, with only one member of the present England XI in the first 22—predictably, Boycott. Equally predictable, 10 in the first 16 came from overseas.

Most are best described as stroke makers, underlining that it is possible to churn out the figures without being a grafter, while the two leading Englishmen, Hampshire and Randall, are natural attackers.

Why are four out of the five-side missing? The answer, quite simply, is that, except for Boycott, they are short of class.

Brearley, apart from the bad patch from which it is good to see that he has escaped, has yet to make a century in Test cricket. Radley is a dependable county player who has covered up certain technical deficiencies by application and determination. Gooch possesses ability but has yet to establish himself fully.

The game is littered with batsmen with just as much talent who have even contributed the occasional spectacular innings at international level without ever becoming England regulars. In this connection John Hampshire springs instantly to mind. Gower is a fledgling of exceptional promise with much still to learn.

To put things in perspective, one would not fancy the chances of this batting line-up against the West Indies of 1976, who are as, and arguably superior to, the present one. If they were here now they would surely have won the series, and Brearley would have suffered the fate of Denness and Illingworth for being skipper at the wrong moment.

In contrast, Mike has the good fortune of being in charge at the right time, as demonstrated by his unbeaten record as a Test match captain.

In sharp contrast to the batsmen, the England bowlers, with the exception of Miller, are not yet of international calibre. They are all highly placed in the bowling averages, not only the four playing in the present Test but also the injured Old and the unlucky Lever, who with Underwood has already captured far more wickets than anyone else in the land.

The strength of this England squad lies in having five outstanding pace bowlers available, an impressive and ever-improving left-armer, a world-class all-rounder, a quality opener and a fine wicket-keeper—plus the bonus of brilliant fielding and runs from the lower order.

Winning has given the team confidence and a belief in themselves. In addition, as so often happens, the breaks and the decisions are tending to go in their favour, and they are understandably well-satisfied with their captain, who has directed operations with considerable skill.

GOLF BY BEN WRIGHT

Canny Trevino makes his forecast work

THERE IS no cannier golf performer than Le Trevino, winner of the Benson and Hedges International Open at the fourth hole of a sudden death play-off against England's veteran Neil Coles and Noel Ratcliffe (Australia) at Fulford Golf Club, York, on Saturday evening.

The trio had tied at 10-under-par 274 in driving rain. Trevino won when Coles drove into a bush after the two had recorded three successive pars. They got rid of Ratcliffe at the first hole, where the Australian missed his par after a poor drive and three putts.

Trevino had forecast to me at breakfast that he fancies his chances if the two young lions, Seve Ballesteros of Spain and England's Nick Faldo became involved in a match-play situation, since they were drawn to play together, last out. Trevino revels in this. At Memphis, Tennessee, earlier this season, he came from behind with a last-round 65 to reach a sudden death play-off against Andy Bean, who was in the final pairing.

Trevino lost that play-off to a monstrous putt at the first extra hole. He had to go eight holes against the black golfer Lee Elder in a play-off for the Milwaukee Open little more than a month later. So he knows what the extra-time business is all about.

The Mexican-American set himself alight by holing a one-iron shot that flew 206 yards for a magnificent eagle two at the 458-yard fourth hole. Out in 31 shots and, knowing the value of setting an early target, he played conservatively thereafter to complete his round in 66.

Aggressive

Ratcliffe always fights aggressively, but on this occasion he could not quite make up the ground to overhaul Trevino. Coles earned his place in the play-off by holing putts of 15 ft on the 16th and 18th greens. This was a typical courageous performance from the English veteran, who really is like vintage wine, at the age of 43 he is getting better.

Eventually the whole thing turned on the last pair of Ballesteros and Faldo. For once, Ballesteros demonstrated his immaturity, which is half his charm. He never has any intention of playing safe and, having taken the lead from his great rival, Faldo, with a glorious birdie at the second hole, he stupidly hooked out of bounds to take seven at the fourth—a five-stroke swing with the eventual winner.

Ballesteros will, like Arnold Palmer, lose many tournaments until he settles for playing with his head rather than his heart. But, like Palmer before him, he will win millions of fans in the process.

He got back into the fight by chipping into the hole for an eagle three at the long 13th, but he dropped a stroke in the worst of the weather at the 15th after another wayward tee shot. The final birdie to tie with the trio already home—and watching on television—eluded him, as it did Faldo.

It was a marvellous finish to a tournament that is as well run as any on the tour. Despite the weather, the event was as successful as any so far in the calendar.

RACING BY DOMINIC WIGAN

R. B. Chesne shows true form

ALTHOUGH Ile de Bourbon took the main prize, the £21,000 for the winner of the Geoffrey Freer Stakes at Newbury on Saturday, by far the most impressive performance of the day, in my opinion, was that by R.B. Chesne.

That Newmarket colt, whom I had dismissed as probably being no more than useful and a long way short of his much-vaunted home reputation after he had scrambled home from the unfancied Serge Lifar in the Sandwich Stakes at Ascot last month, showed vastly improved form in landing the Washington Singer Stakes.

Always travelling smoothly in front, R.B. Chesne had his market rival, Lake City, in trouble and finding nothing fully two furlongs from home. From that point the questions were by how far he would win and who would come second and third.

R. B. Chesne is certainly bred to handle the testing conditions he encountered on Saturday. By Brigadier Gerard, a stallion who, contrary to what might be expected from his racing record, gets a high proportion of out-and-out soft-ground specialists such as Leonardo da Vinci, R. B. Chesne is a son of the Vienna mare, Vive la Reine, a full sister to Vaguely Noble.

Turning back to the Geoffrey Freer Stakes, the connections of both Dunfermline and Royal Hive have decided to call it a day with their good fillies.

There could hardly be two more likely looking prospects with the paddock in mind. Dunfermline is a rangy bay by the dual Derby and 2,000 Guineas winner of 1967, Royal Palace, out of Strathcona; while Royal Hive, another daughter of Royal Palace and, in fact, a better looking one, is out of the Never Say *Die* mare, Come on Honey.

Although she did not hit the headlines in quite the same way as classic winner Dunfermline, Royal Hive achieved an almost comparable racing record.

Winner of four races last term including the Park Hill Stakes, Royal Hive was beaten by only two lengths by this country's top stayer, Shangamuzo, in the Gold Cup at Royal Ascot this June.

At Windsor today, Shoe, a full sister to Banco, who scored on Saturday, ought to get off the mark in the Long Acre Stakes. Here a market move for the hitherto disappointing Great Grey Nice should not be ignored.

LEICESTER

2.45—Our Revenge
3.15—Wild Card
3.45—General Atty*
4.15—Solo Reign
4.45—Starshot
5.45—Call Me Kate

WINDSOR

2.30—Shoe***
4.00—Callibration**

Capes snubs drug athletes

EDMONTON, August 13.

GEOFF CAPES and other British throwers are considering a boycott of this month's European championships in Prague because, they allege, their East European counterparts use banned drugs.

"There is no point in trying to compete with countries ignoring the regulations on drug taking," said Capes after he had won one of England's six gold medals on the last day of the Commonwealth Games here.

"We have not yet had an official meeting, but, we have talked about the situation among ourselves."

Capes, 22 st Huntingdon policeman, won the shot with 64 ft 10½ in.

He said he was totally opposed to the use of artificial stimulants, and that it was time the Russians, East Germans and other Eastern bloc athletes were "sorted out."

"They are not the best athletes in the world; they just have the best doctors. They are laughing their heads off at the number of dope tests we have to go through in the West, and I am fed up with being taken for granted.

"There should be a group of experts who can go into their countries and test anyone at any time.

"The other way is for every athlete to be tested before any record is accepted.

Capes added that he would not make up his mind definitely about the European championships until he returned home.

● The Edmonton Games closed with Canada collecting 109 medals (45 gold, 31 silver, 33 bronze), followed by England with 87 (27, 28, 32) and Australia 84 (24, 33, 27). Scotland won 14 (3, 6, 5), Wales 5 (2, 1, 2) and Northern Ireland 5 (2, 1, 2). Reuter

TV/Radio

BBC 1

† Indicates programme in black and white

6.40-7.55 am Open University (Ultra High Frequency only). 9.55 Paddington. 10.00 Jackanory. 10.15 Grange Hill. 10.35 Three's Company. 11.25 Cricket: Second Test—The Cornhill Insurance Test Series, England v. New Zealand. 1.30 pm Mr. Benn. 1.45 News. 2.10 Cricket: Second Test—England v. New Zealand. 4.18 Regional News for England (except London). 4.20 Play School (as BBC-2 11.0 am). 4.45 Roobarb. 4.50 Help! It's the Hair Bear Bunch. 5.10 Go with Noakes. 5.35 Captain Pugwash. 5.40 News. 5.55 Nationwide (London and South-East only). 6.20 Sounds of Gold. 6.50 Come Back Mrs. Noah. 7.20 The World of Jacques Cousteau. 8.10 Headmaster. 9.00 News. 9.25 The Monday Film: "The Execution of Private Slovik." 11.25 Checkpoint. 11.55 Weather/Regional News.

All Regions as BBC-1 except at the following times:—

WALES—1.30-1.45 pm Pili Pala. 5.55-6.20 Wales Today. 6.50 Newydd. 6.55-7.20 Twndish. 11.55 News and Weather for Wales.

SCOTLAND—5.55-6.20 pm Reporting Scotland. 11.55 News and Weather for Scotland.

NORTHERN IRELAND—4.18-4.20 pm Northern Ireland News. 5.55-6.20 Scene Around Six. 11.55 News and Weather for Northern Ireland.

ENGLAND—5.55-6.20 pm Look East (Norwich); Look North (Leeds, Manchester, Newcastle); Midlands Today (Birmingham); Points West (Bristol); South Today (Southampton); Spotlight South West (Plymouth).

BBC 2

6.40-7.55 am Open University. 11.00 Play School. 4.20 pm Cricket: Second Test—England v. New Zealand. 6.35 Open University. 7.00 News on 2 Headlines with sub-titles. 7.05 World Chess Championship Report. 7.30 News on 2. 7.40 Grapevine. 8.10 Harry Mortimer's World of Music. 9.00 A Curtain Call for Molière. 9.50 Oneupmanship. 10.20 Hospital. 11.00 Late News on 2. 11.10 Cricket: Second Test highlights. 11.40 Closedown (Reading).

LONDON

9.30 am It's Life with David Bellamy. 9.55 Be a Sport with Brendan Foster. 10.20 Oscar. 10.30 Little House on the Prairie. 11.20 21st Century. 11.45 Felix the Cat. 12.00 Paperplay. 12.10 pm Stepping Stones. 12.30 Untamed World. 1.00 News plus FT index. 1.20 Platform. 1.30 About Britain. 2.00 Summer After Noon. 2.25 Monday Matinee: "Among Vultures." 4.20 Clapperboard. 4.45 Enid Blyton's Famous Five. 5.15 Batman. 5.45 News. 6.00 A Town Called Maidenhead. 6.30 Cartoon Time. 6.45 The Kenny Everett Video Show. 7.30 Coronation Street. 8.00 A Soft Touch. 8.30 World in Action. 9.00 Out. 10.00 News. 10.30 Appointment with Fear: "Theatre of Death." 12.15 am Close: A painting by Canaletto accompanied by the music of Vivaldi.

All IBA Regions as London except at the following times:—

ANGLIA [illegible]

ATV [illegible]

BORDER [illegible]

CHANNEL [illegible]

GRAMPIAN [illegible]

GRANADA [illegible]

HTV [illegible]

SCOTTISH [illegible]

SOUTHERN [illegible]

TYNE TEES [illegible]

ULSTER [illegible]

WESTWARD [illegible]

YORKSHIRE [illegible]

RADIO 1 247m [illegible]

RADIO 2 1,500m and VHF [illegible]

RADIO 3 464m, Stereo & VHF [illegible]

RADIO 4 434m, 330m, 285m and VHF [illegible]

BBC Radio London 206m and 94.9 VHF [illegible]

London Broadcasting 261m and 97.3 VHF [illegible]

Capital Radio 194m and 95.8 VHF [illegible]

F.T. CROSSWORD PUZZLE No. 3,744

ACROSS

1 Red Indian doctor hunting bird (6)
4 It shows a measure of intelligence (8)
10 Exhausted by rearrangement of garden rug (3, 6)
11 Diehard (born '51) joins member (5)
12 Big cut converting North Sea fuel to hydrogen (4)
13 Footballer for HQ to share (6, 4)
15 Plants offering rest to the complacent (7)
16 One would return in small hours, to expand (6)
19 Corner right man with rod (6)
21 Excellent specimen of snake (7)
23 Gambler split up most (6, 4)
25 Transfer payment outside right made available (4)
27 Feel it may be out of play area (5)
28 Under-cover support for cyclist (5, 4)
29 Sbs. of being booked (8)
30 Cheap-marble gets boring (6)

DOWN

1 To find a rich husband sounds like a bloomer (6)
2 Least bit of work gives factory workers nasty shock (5, 4)
3 Parcel fur (4)
5 Out of bed with an appointment to be modernised (7)
6 Board joins clergy in offering cover for consumers (5, 5)
7 Zeal I dissipate on Shaw's flower girl (5)
8 End before leaving warning (3, 3)
9 Monstrous woman making advance without public relations initially (6)
14 Beastly ringleader (4-6)
17 A lot drunk maybe to induce change of mind (4, 5)
18 Foliage seen by novelist on railway (8)
19 Salesman gets more pay for some second time round (7)
20 Eager for artist to phone (6)
22 Love a fish to take the bait by the way (6)
24 Support tied up in hayfield (5)
26 Revealed by Shakespeare and Shaw to a superficial extent (4)

The solution of last Saturday's prize puzzle will be published with names of winners next Saturday.

Royal Shakespeare Theatre

Love's Labour's Lost

by B. A. YOUNG

I've never enjoyed *Love's Labour's Lost* so much as in this pretty, rustic, hilarious version under John Barton's direction. It is played in a very simple scene designed by Ralph Koltai, an acting platform on the apron stage flanked and backed by branches of beech-leaves, and the courtiers, both French and Navarrais, wear appropriately simple clothes, as if they had known in advance that all their adventures would be in the open air.

Even the lords and ladies themselves have been simplified. Richard Griffiths is an unexpected casting for the King of Navarre; he presents a chubby, untidy, bespectacled figure like the classic drawings of Billy Bunter; perhaps trying to make up in learning what he lacks in dignity, and his attendant lords might well be his schoolfriends from Greyfriars, with their weakness for such uncomplicated japes as dressing up like Russians and making a lot of noise with their guns.

The French ladies put them down with a friendly scorn, sixth-formers joining in the romps of the Remove but never allowing themselves to be impressed. Carmen du Sautoy (also bespectacled) is a more intellectual Princess of France than Mr. Griffiths is an intellectual King of Navarre, though she does not wave her intellect about. As for romance, it is played in a very low key. Michael Pennington's Berowne may soliloquise beautifully on his victimisation to the giant-dwarf Dan Cupid, but in practice he is a mere student at love-making, and no match for Jane Lapotaire's Rosaline, who might twist him round her finger if she thought it worth while.

It is all very well for the Princess to say: "That sport best pleases that doth least know how"—an example of her inborn *noblesse*—but it is John Barton's intimate knowledge of the text that illuminates the performance with so much fun. All those donnish, fashionable, cult-orientated verbal quips sound as fresh as if they were topical gags from some comedian of our own day. Mr. Barton is very democratic with them; if Michael Hordern's matchless Armado, with his suggestion of the White King from *Alice*, scales the heights of absurdity, the Latin chat of Paul Brooke and David Suchet as Holofernes and Nathaniel runs him close, while Costard and even Moth are promoted beyond their usual range.

Costard, indeed, most enjoyably played by Allan Hendrick, becomes almost a master of ceremonies, cheerfully familiar with high and low, sprightly even when unmasking Amado for having seduced his girl Jaquenetta (a compliant Ruby Wax). Jo James is the most intelligent-sounding Moth I have heard and Mr. Barton, never one to be text-bound, has given him a pretty scene at the start of Act Three. "Warble, child," says Armado, revealing an unexpected talent for the lute, and here Shakespeare offers Moth only the title of a popular song. Mr. Barton has him sing two stanzas of "Love is a babel" to Mr. Hordern's accompaniment and give his master a singing lesson at the same time, extracted from some later lines.

The Nine Worthies, or the five who actually appear, round the French ladies' visit with a packet of fun. Costard, when he has finished being Pompey, stays in the forefront, hopping up and down in excitement, while Nathaniel as Alexander (complete with hobby-horse Bucephalus) sinks to the ground in embarrassment repeating his only remembered line and Holofernes as Judas Maccabeus, also mounted, contests the barracking of the lords. For Hector, Armado is equipped with an enormous red spear and mounted on cothurni ("His leg is too big for Hector's"). The appearance of the black-clad Mercade in such a scene of merriment stops the heart.

The final dialogue is praise of the cuckoo and the owl is spoken, not sung, an arrangement I like better than the mini-plays it is often made into, that prolong the action too much when the Princess has announced her departure and all the farewells have been said. An unexpected hoot from a real owl somewhere in the shrubbery seems to say Amen.

Michael Hordern and Jo J Leonard Burt

Albert Hall/Radio 3

Janacek

by RONALD CRICHTON

Janacek died 50 years ago. His music remains fresh—indeed many are still to their delight discovering it. Yet both personality and rural Central Europe setting seem already as remote as Hardy and the Dorset of his day—the two men died in the same year. On Saturday, the BBC Symphony Orchestra, Singers and Chorus combined under Norman Del Mar to give the Glagolitic Mass and the still infrequently played *Taras Bulba*, with Dvorak's Violin Concerto in between. The hall was not absolutely full, but there were many more people than can be depended upon for a stage performance of one of Janacek's operas.

Taras Bulba, described as a rhapsody, is an orchestral triptych based on three death scenes—the Cossack warrior's son Andrij, slain by his own father for treachery, then another son, Ostapov, finally Taras himself, who dies prophesying glory for his people. Such an idea would have occurred to few other composers, yet it works. The movements are short, there is contrast in the short themes themselves and in the evocative way (for example the nocturnal love-music of the opening) they are used. The last time I heard the piece was in Vienna a few months ago, given by a visiting Czech orchestra with greater weight of string tone (helped no doubt by the famous Musikverein acoustics) but less fine shading than Mr. Del Mar and the BBC players brought to it.

The Mass, better known, is equally individual in conception, with the two final movements reserved for solo organ and orchestra respectively. Again the idea on paper seems unpromising: as usual, Janacek's musical instinct was right. A hearing of the *Taras Bulba* and the Mass in the same programme revealed much in common. The organ features in both, more prominently of course in the Mass. Evidently there was for him no insuperable connection between the instrument and the churches which, we are told, he would not enter. Roy Massey made a stirring sound with the solo in the Mass.

Choirs and soloists had learned the music in Old Czech. It didn't sound very like the "joyful festive service in the open air" which the composer apparently had in mind, and if it had (with, presumably, much of the sound being blown away by woodland breezes) it might not have been so enjoyable. It wasn't a perfectly polished performance but it was warm and invigorating—polish is not the first quality one looks for in Janacek. The soloists were Lorna Haywood, Anneral Gunson, John Mitchinson and Don Garrard, soprano and tenor took their often awkwardly high phrases with brave conviction. Salvatore Accardo played the Dvorak Concerto cleanly and sweetly but rather mildly—like singers some instrumentalists don't project in this hall, and as with the singers it isn't so much a question of power as of personality.

London Symphony

by DAVID MURRAY

Whether by accident or by design, Friday's Prom was made up of *constructed* music—music carefully devised, engineered, welded. Something in the manner of the conductor, David Atherton, suggests a highly efficient Supervisor of Works. In Stravinsky's early, tiny *Fireworks*, he measured out the fuses precisely, and achieved each successive detonation with a sharp, satisfying report. The expert concision of Stravinsky's effects set a standard too high for the rest of the programme.

Not that Holst's *The Planets* was less than enjoyable: between the well-honed brutality Atherton secured for "Mars" and the perfectly faded siren chorus of "Neptune," the contrivances of the work were professionally operated. (John Poole's BBC Singers surmounted the pitch-hazards of "Neptune" splendidly, too.) Granted that Holst's simple musical material is grossly over-instrumented, Atherton regimented his monstrous forces confidently, though without concealing any of the raw seams in the work. There was a want of gentleness in the codas of "Venus" and "Saturn," and not much quicksilver in "Mercury" (taken at a surprisingly cautious tempo): in general, the innocent mechanisms of the music—which occasionally pre-echo Steve Reich—were more vividly exposed than its emotional import.

Andrzej Panufnik conducted his own fifth symphony, the *Sinfonia di Sfere*—"music of spheres" in a merely geometrical sense, for it is a rigidly constructivist work in the manner of some (forgotten) experiments of the 1930s. Unlike most up-to-date serial constructions, its formal blueprint is fairly obvious to the ear, but its simple basic formulas are pervasive to the point of affliction, and their permutation—it does not sound like development—takes a long time. Patches of colour supplied by four brass soloists and three furious drummers, and a string threnody near the end, owed none of their effect to their locations in the grand abstract plan. Panufnik's particular virtues as a composer seem to be more comfortably accommodated in that ambitious paper-pattern as in an Iron Maiden.

Two new RSC productions

Two new productions will join the RSC's repertoires later this year. Stephen Poliakoff's *Shout Across the River* opens at The Warehouse on September 21 (previews from September 19) and Bronson Howard's *Saratoga* opens at the Aldwych on December 21 (previews from December 13).

Stephen Poliakoff's new play, written for the RSC, explores the complex relationship between a mother in her early thirties and a daughter in her mid-teens whose mutual jealousies and affections form the basis of the play. Lynn Farleigh, is playing the mother and the play will be directed by Bill Alexander and designed by Sue Plummer.

Saratoga, by the American playwright Bronson Howard, was written in 1870 and was adapted for the English stage as *Brighton* in 1874. In England the play was revived frequently with Charles Wyndham in the leading role.

The play, substitled *Pistols for Seven*, tells the story of a young man who, "loved wisely but not four well" and unfortunately the four knew each other. The director will be Ronald Eyre and the designed Jocelyn Herbert.

Because of contractual difficulties a new production of Roy Minton's play *Scum* originally scheduled for The Warehouse has now been shelved.

Arts Council jazz bursaries

The Arts Council is inviting applications for bursaries for jazz musicians for devising and rehearsing new material. The Council awarded its first jazz bursary in 1967 and since then over 60 jazz musicians have received one or more awards.

Applicants for bursaries should have at least begun to establish themselves professionally as practising jazz musicians. They should be of British nationality and resident in England, or if foreign nationals should have resided in England for a number of years. Students are not eligible. Application forms are available from The Music Officer (Jazz), Arts Council of Great Britain, 105 Piccadilly, London W1V 0AU. Closing date for receipt of applications is August 25.

Bursary applications are examined by the jazz sub-committee of the Council's music advisory panel. Their recommendations are considered by the Council's music finance committee before being submitted to the Council for ratification.

Coliseum

The Consul

by DAVID MURRAY

A dispute with the English National Opera chorus has brought us Gian-Carlo Menotti's *The Consul*, a piece which conveniently needs none. It re-appeared on Saturday, and I was glad to see it back: I must declare an interest at once, for I saw it at an impressionable age in its original, brilliantly persuasive production (by the composer himself). Poor Menotti is still subjected to intemperate critical abuse of a personal virulence accorded to no other composer, at any rate since the death of Carl Orff, despite the fact that the irritating successes of Menotti's middle age are a quarter-century past. *The Consul* is a specially sore point: *The Medium* and even *Amahl*, respectively Grand Guignol and Christmas-card sentiment, might have been forgiven him, but it seems to be thought an enormity that a composer of his modest talents should have treated the painfully serious theme of *The Consul*—and, worse still, scored a palpable hit.

The Consul is, exactly, a musical play—a poignant thriller which happens to be sung rather than spoken (mostly), and in which characters, pace and emphases are all fixed by the musical score. Seen in that light, its closest match on the Coliseum stage has been Penderecki's *The Devils*. Whether any of the music offers specifically musical rewards (which might qualify it as an "opera") is beside the point, though the acutely sophisticated may resent uncontrollably what they hear. David Blatch's new ENO production does reasonable justice to the work—remarkable justice, considering the time in which it had to be prepared—in Margaret Harris's strikingly apt sets, and I fancy that many theatregoers will find its impact powerful.

The story, spiced with Puccinian ironies, is of Magda Sorel, the wife of a political refugee, who needs official papers to escape the country with her family and join him; the infinitely slow, impersonal workings of the international bureaucracy defeat her, and she loses everything. The action is swift, clear, ingenious—as carefully contrived as any good opera must be (it is a needless pity that the ENO programme spills the plot). The characters are vividly sketched with strokes which are not so much "conventional" as familiar and natural; the libretto rises to a kind of heightened prose—sometimes mawkish, often telling—for the big numbers, and is otherwise toughly concise. There is no vocal display, though Menotti supplies full-throatedly singable lines where needed, in a conservative idiom. Elsewhere the score consists of theatrical scene-music, eclectic and baldly effective, and of musical tag-ends—like singing commercials—deployed with bitter irony in the Consulate scenes and in Magda's expressionist nightmares. Menotti's English word-setting sometimes has a foreign ring, which may be inadvertent but sounds curiously appropriate in the context.

For a work alleged to be commercially calculated and insincere, it is extraordinary how little it has dated after nearly 30 years. Its hits and misses seem very much what they were. The characters really are imagined with conviction, if not with any special penetration, and the Coliseum cast incarnates them sympathetically. All the smaller roles are admirably taken, and Ann Howard's anti-heroine, the Consul's secretary, is a fine study (if a touch too acerbic in the first act: there should seem no malevolence in her). The pantherish intensity of the original Magda, Patricia Neway, is missed—she made a character complex enough to give alarming weight to the dream sequences: Ava June offers a simpler, kindlier figure, a natural victim. She rises well to her declamatory outburst in Act 2, "To this we've come," but lacks the fire-power for her *scena* with the Secretary in Act 1 (which is arguably the best and most originally shaped number in the score).

Patrick Wheatley is a staunch, moving Sorel, and Geoffrey Chard does not over-play the menace of the Secret Police Agent. It is not his fault that the producer has intruded him into both of Magda's nightmares, striking a false and melodramatic note: the pistol-waving in Act 3 is an excrescence too. The theme of *The Consul* is not the horrors of a police State, but the inhumanity of bureaucratic indifference to matters of individual life and death. As the old Mother, Patricia Taylor sings better, probably, than the original—Marie Powers—ever did: but her twitching and moving do amateurish damage to the dramatic fabric: Miss Powers was a mountain of stolid despair, and memorable.

Stuart Kale makes a flighty, engaging Magician. It is quite wrong, though, that the sad dance into which he hypnotises his co-applicants should look choreographed: conversely, the macabre waltz in Magda's dying fantasy is here weak and under-organised. The orchestral reprise of the trio during the first interlude is genuinely vulgar, and should be expunged at once unless the scene-shifters absolutely require it. The conductor Howard Williams rushed the trio insensitively, but otherwise guided the proceedings with sound dramatic sense; some blurred edges will doubtless be tidied within a performance or two. The whole still makes an experience worth the encounter, for anyone not immunised by lofty musical ideals and an overdose of good taste.

Ava June and Patricia Taylor Leonard Burt

Harrogate Festival

Schubert, Brahms and Forbes

by WILFRID MELLERS

The Harrogate Festival Concert on August 9 by the Nash Ensemble set one a trifle gloomily reflecting, as concerts by such groups often do, on the function of chamber music in our society. Three works were performed: Schubert's Trout Quintet, Brahm's A minor Trio for clarinet, cello and piano, and a newly commissioned sonata for ... for a mixed bag of wind and strings, by Sebastian Forbes.

With the Schubert there is no ambiguity as to function. It was commissioned by a wealthy amateur cellist; was intended to amuse both players and listeners; and does so. It is occasional music in the sense that one may eat, drink, smoke and even chatter to it; yet, since it improves the quality of the hedonistic pursuits, it cannot be dismissed as Muzak. Schubert was a composer of genius, which will out: even a music of social persiflage may open horizons through a weird harmony or a wild modulation; and those tunes, immediately fetching and whistleable, remain memorable after 150 years.

The piece's status between pop and art music makes it elusive for modern players. While sounding as relaxed as café music, it must remain responsive to the moments wherein a conversation piece, in the 18th-century sense, reveals a sudden shaft of sunlight, a shadow on the grass. The Nash Ensemble, able musicians though they are, didn't quite catch this. String tone didn't lyrically bloom; piano rhythm missed the Schubertian lilt, and the laughter that is never far from tears.

The difference between Schubert's ostensibly social chamber music and his most personal achievements, such as the sublime quintet in C, is one of degree, not kind: audiences accustomed to toying with a trout while listening to the Trout could graduate naturally to *music* which demands their all of both players and listeners. Schubert's late quartets, like Beethoven's, are not so much public music as music for connoisseurs and amateurs—an élite of those who know and those who love. Brahm's chamber music also comes into this simultaneously personal and social category. He composed his trio for a friend who was a clarinettist celebrated for the intimacy of his tone rather than for virtuosity; and both the player's temperament and his instrument were in tune with the elegiac flavour of Brahms's late work.

Since the A Minor trio doesn't equivocate between functions as does the Trout, it is less problematical for modern performers. Members of the Nash Ensemble played it as though they found it satisfying, even morally good, to perform; we listened to it with satisfaction, and felt good since it defines an attitude to the world—valedictory, yet proud and ultimately affirmative, that is worthy of respect, whether one finds the society one lives in agreeable or contemptible.

But how is a young composer today, perhaps specifically asked to write a piece to companion these two masterpieces, to approach his task? At *one* extreme he may attempt to out-Beethoven Beethoven in encompassing a transcendent Faustian experience: in which case he is likely to come a cropper through presumption. At the other extreme he can aim low at diversion: in which case his difficulty is that he is unclear as to whom he is diverting, what preconceptions about music and society his audience is likely to have. Most frequently he compromises, knowing that the compromise is uneasy. This is what Sebastian Forbes has done: for unclassical precedence his scoring for mixed wind and strings suggests a divertimento; yet the music he has written is also demanding of both players and audience. Incidental pleasures abound: sonorities are beautifully judged and realised; Forbes's now orthodox post-serial idiom is vitalised by fashionable ethnic elements perhaps prompted by metrical pattern and decorative ornament in the music of composers such as Birtwistle and Crumb; and from such Forbes generates tingling textures that exhilarate and, in the second movement, moments of consolatory calm. Nonetheless, we were left asking what has been done to one. Has one gone through a "spiritual experience"? My answer must on the whole be "no." Has one been entertained and diverted? The Harrogate audience's answer would seem, on the whole, to have been "no." If this is a failure on Forbes's part, and I think it is, it is not one for which he can be held personally responsible.

Marceau founds mime school

Marcel Marceau, the French mime artist, is to head a new school of mime in Paris. Known as the Ecole de Mimodrame Marcel Marceau, it will be funded by the City of Paris and will initially take 100 students on a three-year course. This will cover not only mime, but fencing, acrobatics, modern and classic dancing and improvisation.

The school, at the Theatre de la Porte St. Martin, will open in November. It is intended to be fully international, and students will be accepted from any part of the world.

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Reacting to Peugeot

IT WOULD be understandable if Ministers and civil servants who negotiated the Chrysler rescue operation in 1975 felt aggrieved and resentful at the latest turn of events. The rescue was widely criticised at the time, inside as well as outside the Government, for being unduly favourable to the American owners. Members of the Industrial Development Advisory Board felt that the scheme did not offer the prospect of commercial viability. Yet the effect of the Government's intervention has been to keep Chrysler UK alive and to enable the Chrysler Corporation, two and a half years later, to divest itself of its British business on what appear to be favourable terms.

Attractions

Yet anger at Chrysler's failure to live up to the hopes expressed at the end of 1975 should not blind the Government to the potential attractions of the Peugeot take-over. The logic of the 1975 rescue operation—to make the UK plants a more integral part of a larger European and international vehicle manufacturer—was sound: what was under-estimated was the financial weakness of Chrysler Corporation.

On the face of it, the switch from Chrysler to Peugeot should be an improvement. Peugeot is a solidly based company with a consistent management record. One cannot predict how it will fare in the intensely competitive conditions likely to prevail over the next few years; the digestion of Chrysler's three European subsidiaries will be a good deal more testing than the absorption of Citroen. But Peugeot looks at least as likely as any of the other big European motor groups to hold its place in the world industry.

Under the terms of the 1975 agreement Chrysler Corporation is barred from reducing its ownership in Chrysler UK below 80 per cent as long as loans from the Government are outstanding. The Government is unlikely to agree to the change of ownership unless Peugeot is prepared to commit itself to the declaration of intent or something like it, which Chrysler signed in December 1975. This declaration, while not legally binding, set out Chrysler's intention to introduce new models, to maintain operations at the five principal UK sites and to give the UK company an important and expanding role within the worldwide group.

Since Peugeot presumably wants the financial assistance from the British Government to continue, it may be willing to offer similar undertakings. The Government may even be able to harden the commitment on plant closures until the end of 1980, since Chrysler Corporation will continue to be associated with the management of its former subsidiaries until that time. The Government has some bargaining cards in its hands, but not many. If the UK part of the deal becomes too unattractive, Peugeot could withdraw from it. That is a possibility which Chrysler, as well as the British Government, will be most anxious to avoid.

The danger in the Peugeot take-over is that it could make the British motor industry even more of a marginal appendage to a European industry whose main focus of interest and principal factories are on the Continent. There may be a tendency for the European companies to rely more on their Continental than on their British plants even to supply the UK. At the same time the deal, if it succeeds, will underline the weakness of BL. With a declining market share at home and no significant presence on the Continent, BL's strategic dilemma—whether to contract into a specialist car producer or to take on the giants in the volume business—becomes even more acute. If the latter choice is followed, the case for an alliance with one of the established volume car manufacturers looks stronger.

Yet neither collaborative arrangements nor changes of ownership will, in themselves, solve the basic problems of the British motor industry. These problems have to do with management, productivity, labour relations and product development. One hopes that Peugeot will do better than Chrysler, but whether the new owners will be able to elicit the necessary changes of attitude among the employees remains to be seen. Neither the British Government nor Peugeot can guarantee the long-term future of Linwood and the other UK plants, any more than the Government can guarantee the continued existence of BL.

China's global ambitions

EVER SINCE the death of Chairman Mao, China has been developing an increasingly active foreign policy, in both political and economic terms. The political aspect of the equation is that China has adopted a more overt challenge to the Soviet Union's role in the world, while the corollary of its policy of rapid economic growth at home has been a more open attitude towards business dealings with the outside world.

Symbolism

This month the new Chinese policy takes a qualitative jump forward. Last Saturday Peking signed a friendship treaty with Tokyo, and this week Chairman Hua undertakes visits to Romania and Yugoslavia. Now, there is a sense in which the China-Japan friendship treaty can be discounted as mere symbolism, and it is quite likely that the symbolism of the visits to Bucharest and Belgrade will overshadow any immediate practical consequences. Yet when a country of China's enormous size and potential strength adopts a new international policy, there will be no one in either Moscow or Washington who will under-estimate the significance of the preliminary, ceremonial gestures which mark the change.

Symbolism was paramount in the Sino-Japanese friendship treaty, for the main point of contention was the "anti-hegemony" clause which the Chinese finally succeeded in including. On the face of it, nothing could be more innocuous. But both sides knew—the Chinese, intended, and the Japanese feared—that it would be taken in Moscow as an anti-Soviet clause, despite all the disclaimers which have been included in the treaty at Japanese insistence. The paradox is that the Soviet Union offered in February to sign a similar friendship treaty with Japan, with a mirror-image "anti-hegemony" clause, which would have been seen in Peking as anti-Chinese. The Japanese refused to look at it, because of their long-standing dispute with Moscow over the post-war occupation of four islands at the southern end of the Kurile chain.

It would be a mistake to suppose that Japan has chosen "friendship" with China at the deliberate expense of the Soviet Union. On the contrary, Japan's policy continues to be one of impartial good relations with all countries, and it has a massive interest in maintaining good relations with both China and the Soviet Union, not merely because both countries are its close neighbours, but also because it stands to benefit substantially from participation in their economic development programmes.

Affinities

Yet if the Kurile Islands dispute rules out an explicit gesture of friendship towards the Soviet Union at this time, the historical and cultural affinities with China must inevitably play a significant part in Japanese thinking. Mr. Takeo Fukuda, the Japanese Prime Minister, is facing a party leadership contest at the end of this year, and since his standing in the public opinion polls is currently at a low ebb, he may well feel that he needs a major foreign policy achievement to buttress his domestic position.

Chairman Hua, by contrast, appears to be firmly in the saddle at home. It is difficult to see consistency in all aspects of China's current foreign policy either in the provocation to Japan earlier this year over the Senkaku Islands, or in the deterioration of relations with Vietnam which has effectively driven Hanoi more deeply into the Soviet camp. But the forthcoming visit to Romania and Yugoslavia, the two leading "dissident" countries in the Soviet Union's backyard, represent a challenge to Moscow which is unmistakable, even if the respective leaders go no further than the exchange of speeches and ceremonial. No Chinese leader has ever travelled so far West, and the presence of Chairman Hua in Eastern Europe will be a striking symbol of China's new ambitions.

Incomes policy: limits to the German lesson

BY CHRISTIAN TYLER, Labour Editor


Union leaders join a demonstration of striking metal-workers last March in Stuttgart, and, right, Herr Heinz Oskar Vetter, German Trades Union Federation president, who refused to attend a meeting of the concerted action committee.

EVERYONE is tired of incomes policies. Those in government and in Whitehall who believe Britain cannot dispense with them are tired of devising magic formulae that will restrain wages without sending thousands of workers on the march. The unions have lost patience with crude attempts to remove their main function—to extract the best available deal for their members—and the economic pundits are tired of pointing out how incomes policies distort the labour market.

There is, as a result, a curious consensus developing about how the circle might be squared: how the freedom of unions to negotiate wage increases might be reconciled with the desire of governments to maintain some control over the outcome of thousands of separate bargains. Whichever party wins the next general election, employers and unions will be invited to discuss very similar ideas for long-term reform of the system. These ideas are based on the assumption that national leaders can get together in a non-partisan spirit, look objectively at the state of the economy from time to time, and educate the rest of us in what, for that year, would constitute a "responsible" wage rise.

The Conservative Party and the CBI, whether by coincidence or not, have come up with broadly similar proposals about the mechanics of this educational process. The Labour Government has not developed its thoughts, and the TUC has assented only vaguely—in the forum of the TUC-Labour Party liaison committee—to the need for a "broad understanding" each year.

There is nothing particularly new or controversial about the broad aim, which is to try to lift the country out of the weary cycle of wage freezes, Government-imposed pay "norms," voluntary restraint, and rare periods of real freedom. The sting will come if the next government tries to set up an institution to do the job and the unions start asking whether they are being told, advised, guided or merely encouraged to settle around such-and-such a figure.

The Conservatives, the CBI and the present Prime Minister and Chancellor all point to the West German system as the most promising model for Britain.

Leaving aside the question whether German attitudes and union structures make this a realistic comparison, the first thing to be said is that that part of the West German system, known as "concerted action" has broken down.

Last summer the unions announced that they were not going to attend any more sessions of the concerted action committee. The ostensible reason for the rupture was a lawsuit brought by the employers challenging the constitutional proprietary of the latest industrial democracy (Mitbestimmung) Act, which came into full force on July 1 this year. The suit, which will be heard by the Federal Constitutional Court in Karlsruhe on November 28, is to find out if shareholders' rights to their property are being abridged by the (almost equal) presence of worker directors on the supervisory boards of companies.

There seem to be deeper reasons than that, however, some of them reminiscent of the tug of loyalties now evident in some TUC leaders. The concerted action committee has grown to unmanageable proportions—more than 80 dignitaries were sitting down together at the end—and the unions felt that the balance was thrown against them. Because of its size, the committee had become a drowsy talking shop as the parties read out their policy papers. Similar complaints have been heard from the unions in Britain about the meetings of the sector working parties set up for the industrial strategy.

Secondly there have been complaints from below that the union leaders are going soft; their pursuit of national economic harmony was leaving ordinary wage earners out of account. Certainly West Germany suffered this year two serious strikes, by printers and metalworkers, regarded as a bad omen in a country where major disputes are rare.

The unions involved, IG Druck und Papier, and IG Metall, settled at 5 per cent—which was the figure the Government had named as the guideline for 1978. So the collapse of the concerted action committee does not mean that West Germany's unions are running amok; indeed, the main union federation, the DGB, continues to liaise with the Social Democratic Party much as the British TUC's senior six maintain their close rapport with Downing Street.

Another reason for the demise of the concerted action committee was that what started as a forum for discussion of the economy as a whole had become, with the problem of inflation, a discussion of pay policy.

The Federal Government, bound by the framework of law that surrounds the whole German apparatus, is obliged to put out what are known as "guideline data" if things look like going awry. Increasingly, these data — which are not mandatory, and which are never, for political reasons, described as norms or limits — were defining the going rate for pay.

Prime mover in the German system is the independent Bundesbank, which sets its own money supply targets and the parameters for the rest of the debate. That debate begins with a council of independent economists — the so-called "five wise men" — who look backwards and forwards and make recommendations each November.

Last year, for instance, they said that an increase in all earnings of 3.5 per cent was the most the country could afford if its target of a 3.5 per cent growth rate was to be achieved. That figure (corresponding to the British Government's unofficial 7 per cent figure of Stage Four of the incomes policy) was translated as about 3.5 per cent for wage settlements.

After the five wise men have reported, the Federal Government itself produces an annual economic report in January, setting out its own goals, and any "guideline data" that may be necessary. The parties all meet, several times a year, in the concerted action committee to see that everyone is pulling in the same direction at the same time when it comes to wage bargaining.

The past four years of incomes policy in Britain have seen a similar chain of events develop, although the conduct of the "norm-fixing" has been much more informal, and the guideline has been dramatically unveiled in a White Paper shortly before the beginning of the new wage round, now informally fixed at August 1 each year. Instead of a committee drawn from all the vested interests, the Chancellor of the Exchequer and other Ministers have entertained a succession of delegations—of whom the TUC has been far the most important—in Downing Street.

The motives of the combatants in Britain for wanting to change—or institutionalise—wage determination are not all the same, of course. Although it has not spelled it out, the Labour Party would presumably like to find some way of guaranteeing that there can be at least a gentleman's agreement with the TUC each year to breathe new life into the moribund social contract. As Mr. James Callaghan has made plain, any Government of his will continue to set targets for pay if inflation is menacing. He would presumably hope to secure something more than a polite hearing from the unions, and ideally reach a state of mutual confidence where the credibilities of the present policies — like sanctions against employers — are no longer necessary.

Battle against inflation

Only the broadest statement of aims has emerged from the Government. It says in its Stage Four White Paper, Winning the Battle against Inflation:

"It is the Government's view that the country should aim at a long-term approach in which collective bargaining is based each year on a broad agreement between Government, unions, and employers about the maximum level of earnings which is compatible with keeping inflation under control in the following 12 months. The policy for next year (that is 1978-79) has been shaped so as to permit a transition to such longer-term arrangements."

The Conservatives start—like the Germans and the present French Government—from the basis that the money supply will set the parameters. Cash limits would govern the public sector, while the private sector would be allowed to return to "responsible" and realistic" bargaining. In other words, if you ask for too much as a union or if, as employer, you give too much, you will be out of a job or out of business. Within these constraints there will be free collective bargaining. (Although the word "free" has been disappearing from Conservative policy speeches of late.)

As for the machinery, the Conservatives are thinking of using the National Economic Development Council—a hardy tripartite body—as the basis for an economic forum, provided that would not put the NEDC itself in danger. The NEDC would become, in effect, the concerted action committee, with the difference that it might itself report directly to a beefed-up Commons Select Committee. The emphasis here is against power bargaining and towards "education" of unions and workers in the economic facts of life.

At the CBI, which has been developing its policy ahead of the Conservatives, one of the main motives is to give employers more weight in the power balance.

It has also been most publicly alive to the inherent contradictions—not to mention the un-Britishness—of an institutional answer to the bloodsport of collective bargaining. The CBI's members—many of whom are for genuinely free collective bargaining—have objected that central mechanisms are liable to end in wage-fixing at the centre, and throw the CBI itself into the toils of the corporate State.

Its latest policy document calls for a central mechanism that would be linked to Parliament and which would operate in two stages. The first would be for a Parliamentary select committee to take evidence from all the parties and report on economic prospects in early autumn. That report would be debated by Parliament and colour the public expenditure White Paper and the Budget.

The second stage—which would not necessarily be called into play every year—would be for the Government to set out precise guidelines based on the assessments of the select committee. But the guidelines, discussed with the TUC and CBI, would be a recommendation to negotiators, not an imposed limit.

The public services would be subject to cash limits set in the light of the economic report; while public sector industries would bargain against the background of "realistic" medium-term financial targets, without any further Government interference. The CBI wants a shorter negotiating round—say, between November and April to begin with — with public sector pay deals occurring after those in the private sector where the going rate would be determined.

All these proposals, of course, assume that the thousands of shop stewards and local union officials who negotiate pay with employers in Britain—in sharp contrast with West Germany and most other European countries—will be sufficiently uplifted at the sight of wise men setting out the economic parameters to infuse their bargaining with a sense of the national interest. As has been shown time and again, it is not enough to persuade the general secretary of the TUC that the country can only afford X per cent this year. The TUC just is not like that. The [illegible] in danger of misfiring even before it begins. When trade union leaders say their bargaining will be responsible—and nearly all do—they do not mean that they want someone else, even the TUC, to tell them what "responsible" means in terms of pounds and pence at any one moment.

For all the consensus about the need for a new approach, the suspicion must remain that if Britain's trade union structure were susceptible to "concerted action"; we would have had it by now.

MEN AND MATTERS

Hardly Britain's vintage year

You might well imagine that the weather we have had this so-called summer would have put paid to the hopes of one fledgling industry—the British wine growers. But I was assured yesterday by Major-General Sir Guy Salisbury-Jones, who produced 26,000 bottles in his record year: "The battle is not lost." The vineyards certainly need sun—in France as well as here—and the British grapes will not be harvested until early November. "It will be a small crop," says 84-year-old Sir Guy. "It's the worst year except one that I can remember since I began growing vines in 1951. But we could still produce some good wine."

Another of Britain's growers is Norman Cowderoy, a director of shipbrokers H. Clarkson. He returned at the weekend from a trip to Japan, and says he was surprised at the way his vines—at his home near Horsham, Sussex—had survived the weather. Cowderoy was one of the founders of the English Vineyards Association, which now has 200 members, and of which Salisbury-Jones is president. According to Cowderoy, the fruit is still too small to have been knocked down by the recent heavy rains.

In a good year, British growers produce 250,000 bottles, which may be tiny when set against the European wine lakes, but is still a lot to dispose of. Where does it all go? Cowderoy told me firmly that Britain now produces white wines to rival any on the Continent. There is no shortage of customers, in such places as Harrods and Fortnum and Mason.

Salisbury-Jones, whose vineyards are in Hambledon, Hampshire, says: "I cannot grow enough. Do you realise that we export it to Hamburg and Bremen?" If the growers have a sense of grievance at the moment, it is not merely because of the weather. They feel the Government does not take them seriously, although they provide the Treasury with £1m in excise duties. It is time, they think, that the Ministry of Agriculture began looking for ways to offer them grants of various kinds. Serious growing takes infinite care: Sir Guy is expecting an adviser this week from the Champagne region—"they have the same chalky soil as ourselves." And it is not just on England's southern fringes that the grapes will prosper. One vineyard is going well near Lincoln.

Poles apart

Although the Church Commissioners have written an uncompromising letter in response to this column's report on plans to demolish St. John the Evangelist in Reading, I learn that the Department of the Environment may this week order a public inquiry. It will be recalled that the Polish community in Reading wants to buy the church, but that the local Anglican vicar insists upon a "clean break," to avoid nostalgia among his parishioners.

The continuing furore is nerve-racking for the Bishop of Reading, the Rt. Reverend Eric Wild. Yesterday a group of residents living near St. John's went to his palace in Upper Basildon to deliver a protest. Leading the campaign is Mrs. Hennie Ward, a Dutchwoman who lives close to the condemned church. The Reading civic society is also bombarding Bishop Wild with missives. The latest accuses the Church of England of being "dog in the manger" for refusing to sell St. John's to the Poles. Officially, the church closed yesterday, but even if the D. of E. keeps silent, Reading's building control officer will need to be assured that the 150 ft spire can be demolished without showering masonry on the houses below.

Aubrey's option

After 18 years at the head of his company, Aubrey Wilson is going back on the road. But it is hardly a tale of disaster: at 55, the man who claims to have "made industrial research respectable" is leaving the chairmanship of IMR Ltd. to concentrate on airing his ideas at seminars around the world and to handle individual consultancy. Wilson sold IMR five years ago to Audits of Great Britain for £350,000, then agreed to stay on a substantial contract. It shows that in business there can be as much money in preaching as in practising, since he started the company on a shoe-string in 1960.

Wilson left school at 14, to sell goods for his father's wholesale textile firm. Years later he took a course in economics and plunged into industrial market research. He seems to relish the complex jargon he has invented, but says the key to his success was easy: "We specialised—and never touched consumer research."

Soviet sweat-shops

When town planners drew up plans for Moscow's new high-rise suburbs they paid little heed to that soothing Russian institution, the banya. It is something between a sauna and a Turkish bath. Now citizens are writing to their newspapers and badgering party officials to see that more are built without delay.

One of the best-loved banya in Moscow is the Central, on the second floor of a rundown block. My colleague Anthony Robinson has been there, investigating the steamier side of Soviet life. The Central is just around the corner from the Berlin Hotel, where foreign Comintern delegates nervously awaited their fates during the era of Stalin's purges; also nearby is Children's World, a huge toy emporium which incongruously faces KGB headquarters in Dzerzhinsky Square.

Inside, solicitous old attendants supply white cotton robes, birch twigs, loofahs and beer to the clientele, who are lounging, gossiping or eating salted fish and cucumber. Every now and then someone goes through the swing doors leading to the shower-room and ante-chamber. Through the steam, large bodies can be seen on marble slabs being pummelled and massaged. Another door leads to the banya proper, with its blistering heat and unforgettable smell of birch twigs and camphor. All around, men flail themselves briskly or beat their companions.

The whole process, interspersed with massage, shampooing, barbering and games of chess, takes several hours. "I am not surprised they are getting restless down in the suburbs without it," says Robinson.

Hot line

My colleague B. R. Ackenhouse, who has been spending his holidays in Andorra, brought back this riddle: Q. Why did an Andorran pay a lot of money for a house that was overshadowed by a huge power station? A. Because he wanted to be sure that he always got fresh electricity.

Observer

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Indian Industry

There is controversy over the role of large-scale industry in India's development, but Indian manufacturers and contractors are becoming a stronger force in world markets. Given the right encouragement they can make a crucial contribution to the Janata Government's social and economic objectives.

CONTENTS

Switch to the rural areas

By Geoffrey Owen

IT IS IRONIC that at a time when Indian manufacturers, especially in newer industries like engineering, are beginning to make a significant impact on world markets, the whole thrust of industrial policy over the past 30 years should be increasingly questioned inside the country.

With the help of stringent import controls and massive public sector investment, India has created a large and diversified industrial base which provides most of the country's needs in consumer and capital goods. But critics argue that the price for this achievement has been the serious neglect of agriculture, which still accounts for nearly three-quarters of the labour force, a proportion that has stayed unchanged for more than 50 years. It is the rural areas, they point out, which suffer from chronic under-employment and widespread poverty. The growth of large-scale industry, much of it capital-intensive in character, has made a negligible contribution to the creation of new jobs; it has been too dependent on the demands of a narrow elite in the big cities. There must be a radical shift in policy towards the encouragement of labour-intensive cottage and small-scale industry in the villages; this is a central feature of the new development strategy being pursued by the Janata Government under Mr. Morarji Desai.

Yet this change of emphasis can be implemented without abandoning the industrial achievements of the past 30 years. Indeed it is in the interests of large-scale industry that the shift should take place. From the mid-1960s the impetus to industrialisation, stemming from import substitution and investment in infrastructure began to peter out. For most of the past ten years industrial activity has been sluggish, with most sectors operating well below capacity and the incidence of "sick" companies (many of which have been rescued by the Government) increasing. Neither the consumer market among the higher-income groups nor the development of exports has provided an adequate spur to growth and new investment.

If the Janata Government can implement its strategy geared to agriculture and rural development, this will create a large and sustained demand for the products of industry. Irrigation, electrification, road building, fertilisers—all the programmes needed to boost agricultural productivity will require machinery and basic materials from the large-scale manufacturers.

Moreover, there is no reason in principle why the encouragement of cottage industry and small-scale entrepreneurs should be at the expense of the large-scale manufacturers. As long as due regard is paid to the comparative advantages of each sector, one should be complementary to the other. To the extent that the Government imposes a ban on expansion by large-scale manufacturers in certain fields, or even a compulsory cessation of production, problems are bound to arise in individual cases. Much will depend on the flexibility with which the policy is applied, but most managers in large-scale industry support its general objectives.

Distortions

Indian industry, despite the distortions arising from indiscriminate import substitution and some mistaken investment decisions, represents a valuable tool which can be used by the Government to achieve its social and economic goals.

The conditions for raising the industrial growth rate are unusually favourable. India's foreign exchange reserves are high, thanks in part to the flow of remittances from Indians working in the Middle East. After three successive years of good crops there are large stocks of food grains. Moreover, there are signs that the increase in rural incomes resulting from the good harvests is at last being reflected in higher expenditure on both consumer and investment goods.

In the past six months or so the pace of economic activity has quickened markedly. The Government is aiming to achieve a growth in industrial production of 7-8 per cent in 1978-79, compared with only 3.5 per cent in the past financial year.

In the short term the main threat to the achievement of this target is no longer lack of demand, but bottlenecks in supply. There is a chronic shortage of power in several areas, stemming partly from lack of investment but more seriously from managerial and operating weaknesses in the state electricity undertakings.

Shortages have appeared in cement, coal and steel. It seems that the margins in parts of the infrastructure are so tight that a small increase in demand, or a sudden interruption of supply due to a strike, can cause severe disruption. While large-scale investment programmes are being planned in several of these sectors, the immediate problems will require emergency action to deal with shortages, including imports.

In the longer term the Government must create the conditions in which industry can do its job. Since the industrial policy resolutions of 1948 and 1956 the primacy of the public sector over the commanding heights of the economy has been established, but it has been recognised that the private sector would continue to play an important supporting role. Apart from coal and the commercial banks there have been no deliberate acts of nationalisation for political or ideological reasons.

While there are frequent arguments over where in detail the boundaries should be drawn, there is a generally accepted framework in which the private and public sectors can co-exist. Arguing for the first industrial policy resolution in 1948, Mr. Nehru said: "I have no shadow of a doubt that if we say 'lop off the private sector,' we cannot replace it adequately. We have not got the resources to replace it and the result would be that our productive apparatus will suffer."

This pragmatic approach, with variations of emphasis along the way, has continued. One of the first acts of the present Minister for Industry, Mr. George Fernandes, a Socialist and former trade union leader, was to approve a long-standing application by a company controlled by Tata, the largest private industrial group, to build a big power station in Western India—a sector of industry normally reserved for the public sector. Similarly he has encouraged investment in new cement plants by some of the business houses whose management methods and commercial practices he has often denounced.

Yet there is a deep-seated distrust, on the part of many politicians and bureaucrats, of the motives and behaviour of "big business." To some extent this distrust may be justified by the malpractices of certain large companies in the past, but the consequence has been the erection of a complicated apparatus of controls and regulations designed to inhibit the big company's fredom of action. Some say that this apparatus has become a vested interest for both sides—for the bureaucrat because it gives him power, for the businessman because he can manipulate the rules to his own advantage.

Many of the controls have outlived their usefulness and it should be possible to dismantle them without departing from the principles of a planned economy in which the allocation of resources is decided centrally. There have already been moves to simplify the licensing system, whereby all proposals for large new units, substantial increases in capacity have to be approved by the authorities in New Delhi. There is also a wider recognition of the damage done to several industries by price controls.

Some tensions are bound to persist. Quite apart from the ideological support for the public sector, the large industrial groups are always likely to be regarded with suspicion in a predominantly agricultural country. The difficulty of reconciling social and political objectives with the need for a viable, profit-making private sector has proved almost insuperable in certain industries, most notably cotton textiles.

Squeezed

The mill owners, though by no means blameless themselves, have been squeezed between the interests of the cotton growers on the one hand and consumers on the other. A complex system of price and other controls has severely limited their ability to make profits, with the result that modernisation has not taken place and a number of non-viable mills have had to be taken over by the Government. But the new textile policy just announced in New Delhi appears to go some way towards meeting the industry's needs.

In this and some other sectors India's performance over the past decade or so has been disappointing, especially compared with countries like Brazil and South Korea. But the reasons have more to do with politics and policies than any lack of industrial skills.

Until the recent moves towards liberalisation, Indian manufacturers have been virtually free from external competition in their home market. At the same time the licensing system, the restraints on expansion by large business houses and other controls have greatly reduced internal competition. The incentives for cost reduction, for the development of new products and for the use of marketing skills have been weak. There has been a tendency towards over-diversification within companies and within factories, with inadequate attention to economies of scale. As more manufacturers become exposed to world competition through exports—and if the trend towards import liberalisation is maintained—the necessary structural changes may be allowed to take place.

Despite all the difficulties, the strengths of Indian industry are considerable. There is a long entrepreneurial tradition in India, both in trading and in manufacturing. The best-managed companies, in such fields as commercial vehicles, automotive components and some capital goods, have achieved levels of efficiency and quality which compare favourably with their leading European and American rivals. At the small-scale end of the spectrum, Indian entrepreneurs have achieved impressive success in such fields as the manufacture of bicycles and in the development of the diamond polishing industry.

Labour unrest has been a constraint, especially in the period immediately following the end of the Emergency, and it is often provoked by inter-union rivalry. But although

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The environment in which Indian industry operates has been dominated by import substitution policies, restricted internal competition, extensive bureaucratic controls and a large public sector. But the present Government has made some moves towards liberalisation, increasing the area of the economy in which market forces may be allowed to operate.

Industrial policy

THE PRINCIPLES which have guided India's industrial policy since 1948 have included a *dominant role for the public* sector in key sectors of the economy and strict control over private sector companies to ensure that their activities are in line with the targets set out in successive Five-Year Plans. The first has involved heavy investment by the State in such areas as steel, engineering, shipbuilding, telecommunications equipment, chemicals, petroleum and mining. The instrument for controlling the private sector has been the licensing system, started in 1951, whereby companies wishing to start new units or to undertake substantial expansion have to obtain a licence from the central Government.

Apart from the regulation of investment and production in accordance with Plan priorities, the objectives of licensing were to protect and encourage small-scale industry (defined as industrial units with a capital investment of not more than Rs1m, or about £67,000), to prevent the concentration of ownership and to promote the balanced economic development of the different regions of the country.

The performance of the public sector, described in a later article, has greatly improved in the last few years. Although its overall financial results are held down by badly planned and badly implemented investment decisions in the past (and by the large number of sick companies taken over by the Government), it is no longer the drag on the economy which it seemed to be some ten years ago. But the licensing system and the other controls over the private sector have failed to achieve their objectives. Their effect has been to inhibit modernisation and expansion, and they have not succeeded in reducing industrial concentration.

Permissions

As Mr. T. D. Thomas, chairman of Hindustan Lever, has put it, "obtaining all licences and permissions to set up any significant industrial undertaking in this country is like running an obstacle race. When you clear one hurdle you come up against more—and over the years the obstacles have been made more difficult and numerous. It takes a lot of stamina and endurance. Paradoxically, this is one of the main reasons that in India only large companies can afford to seek growth as they have the resources to cope with this obstacle race and the occasional total frustration; smaller people get eliminated or even ruined in the earlier stages of the race." Mr. Thomas estimates that it has taken seven years between the decision to invest and the start-up of production, and that half the delay is due to Government procedures.

Many people in Government now recognise that the licensing system has produced unintended *distortions in the industrial* structure. The Draft Five-Year Plan for 1978-1983, published earlier this year but not yet approved, admits that high manufacturing costs have sometimes been the direct outcome of the Government's licensing policy. "Where the demand was large enough to sustain only one plant of economic size, several plants with suboptimal capacities were licensed in the name of diffusing ownership and preventing monopolies."

The problem of fragmentation and high costs has been reinforced by indiscriminate import substitution. "A few industries have been set up," the authors of the Draft Plan point out, "which cannot be low-cost producers by international standards. While this may be necessary in certain strategic areas, it was not essential in many others."

These cost disadvantages *might have been more* acceptable if the heavy investment by the public sector and the growth of private industry had helped to solve the country's unemployment problem. The whole factory sector, including power generation, mining and quarrying, employs no more than 6m workers. This represents about a third of the labour force in the organised sector (including organised trade), but only 2½ per cent of the country's total labour force. Each year industry has created some 200,000 new jobs, compared to the annual increase in the labour force of some 6m.

The number of people employed in the cottage and small industries—the so-called unorganised sector—is much higher, but their share in industrial production has been declining. The disparities between regions have been accentuated: the poorest areas have become poorer.

The present Government's industrial policy, announced at the end of last year, is designed to tackle these problems, but without destroying the general framework which has been established over the past 30 years. The statement emphasises the close interaction between the agricultural and industrial parts of the economy. It points out that an improvement in agricultural output and productivity requires inputs such as power, steel, cement, fertilisers, farm machinery and other industrial items. At the same time "the distribution of income arising from a broad-based growth of agriculture and related activities in the countryside has to provide the basic demand for a wide range of industries producing articles of consumption."

The main thrust of the policy is to be the promotion of cottage and small industries widely dispersed in rural areas and small towns. "It is the policy of the Government that whatever *can be produced* by small and cottage industries must be so produced." The list of industries exclusively reserved for the small-scale sector has been extended to more than 500 items, compared with about 180 previously. Big companies will be prevented from expanding in, or entering, these sectors, and the role of large-scale industry in supporting the programme is clearly defined.

"The Government will not favour large-scale industry merely for the demonstration of sophisticated skills or as monuments of irrelevant foreign technology." Its task will be to provide the basic materials essential for infrastructure development, such as steel, cement and oil; to make the capital goods needed both by the basic industries and by small-scale manufacturers; to make the high-technology items which need large-scale *production and are related to agricul*tural and small-scale industrial development, such as fertilisers, pesticides and petrochemicals; and to make the other products which are outside the list of reserved items for the small-scale sector but are essential for economic development, such as machine tools, organic and inorganic chemicals.

The statement also includes a somewhat tougher policy towards the large business houses. These companies are already subject to the Monopolies and Restrictive Trade Practices Act, whereby all proposals for expansion or diversification require specific approval from the Government, but this has not prevented what the statement calls a "disproportionate growth of large houses." Much of their growth has been based on funds borrowed from public financial institutions and banks. "This process must be reversed." The rules of the MRTP Act will be strictly enforced and the large houses will be obliged to rely more on their internally generated funds for expansion.

Significance

The practical significance of the industrial policy statement is a subject of much debate in the business community. While the Minister for Industry, Mr. George Fernandes, has no doubts about the radical nature of his proposals (see interview below), there are hopes that the reservation of items for small-scale industries will be applied in a flexible way and that the necessary interdependence between large and small will be recognised.

Many big companies point out that they have consciously developed ancillary industries as component suppliers and subcontractors. Philips India, for instance, has 560 ancillary suppliers, 480 of which have turnovers of less than Rs 1.5m (about £100,000); these ancillaries employ about 25,000 people, of whom over 4,000 work directly on Philips offtake.

This inter-dependence will apparently continue to be encouraged, but the Government is determined to give an extra push to the development of small-scale sector. If the development of small-scale industries is based on products in which they have a genuine comparative advantage—particularly in agro-based industries where the raw materials are locally available—then the policy may succeed. But whether it will make a significant contribution to alleviating rural poverty and unemployment will depend on the effectiveness of the administrative organisation, particularly the District Industry Centres which are now being set up.

So far as large-scale industry is concerned, the Government is attempting to improve its efficiency by injecting some competition into the system, partly through import liberalisation and partly through a loosening of the administrative controls. In several industries there are a number of factories whose capacity is too small by international standards. Some of them manufacture most of their components in-house—partly because a component supplying industry did not exist at the time they were set up. Concentration and specialisation, to achieve economies of scale, has been made difficult by the licensing system, while the lack of internal competition has made it possible for inefficient methods of operation to persist. A limited shake-up, to eliminate some of these distortions, is now seen to be necessary. Some controls have already been relaxed and a full-scale study of the whole apparatus of controls and subsidies is under way.

Thus the area of the economy in which market forces may be allowed to operate is being expanded. Similar tendencies are at work in policies towards public sector enterprises, which are being encouraged to compete with less protection and subsidy than in the past, and in a more selective approach to the rescue of sick companies. While it is too early to speak of a turning point in industrial policy, these developments suggest that the determination to prohibit, regulate and protect, which has been built into the system over the past 30 years, may be beginning to lose its force.

Geoffrey Owen

The man in charge

"A REMARKABLY intelligent, pragmatic man who knows how to get things done." "A rabble rouser who couldn't even run a workshop." "A political lightweight who has no real power base in the country." These are a few of the conflicting comments one hears in the Indian business community about George Fernandes, the 48-year-old Socialist and former trades union leader who has just completed a year as Minister of Industry.

Born in Mangalore in the southern state of Karnataka, Fernandes trained for the priesthood, but gave up his studies at the age of 19 to join the Socialist Party and became a trade union organiser. He moved to Bombay in 1950 and later became president of the All India Railwaymen's Federation. In 1974 he led a national rail strike, one of the events which led to the imposition of the Emergency. He was arrested and imprisoned, but when the elections were called in March, 1977 he was nominated as a candidate for a constituency in Bihar and won by a large majority. He was invited by Mr. Desai to join the Cabinet as Minister of Communications, but was switched after a few months to the Industry portfolio.

It was Fernandes who largely drew up the industrial policy statement of December 22, 1977, which puts great emphasis on the promotion of cottage and small industries in rural areas. Asked how radical this change of emphasis would be in practice, Fernandes told me: "We have moved from the large to the small, from the capital-intensive to the labour-intensive, from the urban to the rural. These three changes are so radical and so drastic that in the coming five years they will produce a qualitative change in the overall structure of our country."

He does not accept that the switch of production from large companies to small will involve the creation of high-cost, non-viable industries which will have to be kept alive by the Government. But even if there were a cost penalty, *it would be* justified by the social and economic fall-out from the dispersion of industry in the countryside.

George Fernandes

He takes as an example matches, where one company, Wimco, produces 30 per cent *of the country's output* in five factories employing about 13,000 workers while the rest comes from the cottage and small-scale sectors employing 450,000 workers. The entire match industry, according to Fernandes, could be in the cottage sector: a phased transfer from machine to hands could provide employment for more than 200,000.

Fernandes is a Socialist, but a pragmatic one. "I'm for an expanding public sector and I'm for reducing the concentration of economic power in the hands of a few families." But he recognises that large-scale industry, even the privately owned part of it, has an important role to play. "Public ownership is not the be-all and end-all of Socialism."

He wants to see a professionalisation of management in the big business houses, so that top posts are no longer reserved for members of the family. He wants industry to grow vertically rather than horizontally, so that economies of scale can be achieved. He is unhappy about the definition of large companies under the Monopolies and Restrictive Trade Practices Act and he agrees that some of the controls which constrain and delay industrial expansion should be removed. He does not believe that foreign-owned companies have too much power in India and he sees a continuing need for foreign investment in certain sectors. "If anything we have taken steps to make the climate more conducive to foreign investment in this country."

Opponent

He is a determined opponent of "red-tapism" and claims that no application to his Ministry has to wait longer than three months for a decision. He points to his rapid approval, soon after taking office, of the Tata power station project, which had been pending under the previous Government for several years.

As for the efficiency of the public sector, he believes that some of the companies, such as BHEL, HMT and Air India, have become highly efficient by world standards, "but the problem is that we have yet to develop the right managerial culture." He is giving much thought to upgrading the management of the public sector companies without losing its distinctive character.

He does not believe that the relatively low salaries paid to senior managers are a real problem, but he is pressing for a restriction of the salaries that can be paid in the private sector. He wants to encourage employee participation at all levels (though his own past experience does not attract him to the concept of Board-level representation) and he has asked a group of trade union leaders to prepare proposals on this.

Fernandes works long hours and is regarded as one of the most effective Ministers in the Cabinet, but he says he is "personally not very happy with the job, though it has its plus points." At this stage in India's development he would prefer to be working more directly on the problems of unemployment and poverty.

In a long interview with Blitz, a weekly newspaper, he has outlined his plans for a national reconstruction army (NRA). The idea is to organise the millions of the unemployed literate and illiterate into a large work force to involve them in the task of nation-building—to build dams, roads, bridges and houses on a mass scale, to reclaim fallow land and to develop the resources which are lying idle.

It would be a volunteer army, living a community life in camps, with a regular chain of command and with an "auxiliary brigade" of consultants with specialised skills. The NRA is not government policy, but it is partly inspired by *the fact* that the Janata Party "does not have the kind of committed cadres one needs to move a whole people intot action."

"Forget what you were yesterday," he told the readers of Blitz. "Today you are a pioneer for the national cause, committed to the eradication of poverty and unemployment, creating national wealth through your voluntary effort. Not looking at the wall clock, not loitering in the passages, not running to the urinal to escape the drudgery of desk work, not gossiping with the girl at the next desk, not currying favour with the section head to get an early promotion. I am talking of a revolutionary new work culture being developed as a fall-out form our economic reconstruction efforts through the NRA.

"The philosophy behind the idea is simple. Use the vast manpower of our country that is today going waste to generate wealth for the people and in the process create conditions for the establishment of an egalitarian society."

G.O.

Strategy for the small producer

A RECENT survey of industry in India revealed that for every Rs 100,000 invested in the small-scale sector, 22 people found jobs. This compares with six people finding employment in factories requiring capital investment of between Rs 1m and Rs 2.5m and just three people in units requiring more than Rs 2.5m. The survey also found that the small-scale sector created more job opportunities at a lower per unit cost of output. This is indicated by the average employment value added ratio, which was as high as 20 people for every Rs 100,000 of value added in the small-scale sector compared with the all-India average of ten people for the same amount.

Since the Government is committed to eliminating unemployment within ten years, the industrial development strategy it has chosen is based on small producers. The main objective is to decentralise and distribute the industrial base widely enough to expand employment opportunities and reduce regional imbalances in development.

The findings of the survey provide the rationale of the policy. In the context of the relative scarcity of capital in India and a regular and sizeable expansion of the labour force, reliance on the small-scale sector is aimed at creating the necessary employment generation. An incidental, though not unimportant, result is that provision of purchasing power in the hands of a larger number of people will stimulate demand and hence the economy as a whole.

This is the cornerstone of the ruling Janata Party's industrial policy of last December when Mr. George Fernandes, Minister of Industry, announced that it was the "first policy of this Government" to switch the emphasis from large industries. "The main thrust of the new industrial policy will be the effective promotion of cottage and small industries widely dispersed in rural areas and small towns. It is the policy of the Government that whatever can be produced by small and cottage industries must only be so produced," said Mr. Fernandes.

Reserved

Over 500 items made by industry are now reserved for the small-scale sector and the Monopolies and Restrictive Trade Practices Act is to be amended to give this statutory force. The policy goes a step further by giving a special place to what is called the "tiny" sector consisting of units with an investment in equipment and machinery of up to Rs 100,000 (about £6,000) and located in villages and towns with a population of less than 50,000.

Special schemes are to be drawn up for making available margin money assistance to "tiny" units. The Industrial Development Bank of India has been asked to set up a separate wing to deal with the credit requirements of the small sector, which is already entitled to concessionary terms from the nationalised banks and other public financial institutions.

Yet the Government's policy is not exactly new. The small-scale sector has been given preferential treatment for the past two decades, even though the attention given to its progress has been haphazard and there has been no real monitoring of its troubles. But its expansion has been rapid. In 1972, for instance, there were 1.4m small units producing goods worth Rs 2.6bn; in 1977 the number rose to 2.69m and the value of production was estimated at Rs 7.57bn or roughly 25 per cent of the total industrial output in that year.

The small-scale sector's contribution to exports is equally impressive. Exports by small units in 1976-77 were Rs 8.7bn, a rise of 47 per cent over the previous year and accounting for over 17 per cent of the country's total exports. Many of the exports were in relatively new products. The major product group identified by the Ministry of Industry were engineering goods, cotton garments, cotton hosiery, finished leather and leather manufactures, marine products, woollen hosiery, cashew kernels and cashew shell. Other groups like plastic products and processed food are increasingly finding a larger share in small-scale industry's exports.

Yet for all its key role the small-scale sector needs to be looked after carefully because it is more vulnerable to operational problems and the vicissitudes of the economy. Small units have proliferated for more than a decade with the assistance of official agencies but they are plagued by "sickness" to a greater degree than their large counterparts and often succumb as they are not big enough to merit official attention.

There is in fact an alarming mortality rate. In 1973 the Commissioner of Small-Scale Industries made a comprehensive census of small units all over the country. Of the 233,000 units covered, as many as 24,109 were untraceable and another 53,148, although traced, had closed down.

This suggests that as many as a third—and in some States even a half—of small units that were started proved to be unviable. The implications of this in terms of blockage of capital, loss of production and rise in unemployment are serious. If the incidence of "sickness" in small industry is higher than in any other sector, the conclusion is inevitable that there is a link between the size of an industrial unit and its mortality rate.

A recent seminar on small industry pointed to the need for clearly defined criteria of "sickness" to be uniformly applied to small units. It worked out a set of norms or indicators of "health" of a unit which could be prescribed, and on the basis of these indicators a composite index of performance of a unit could be prepared which could be used to diagnose the "sickness" of a unit.

Priority

The most important are the financial indicators, since many official and non-official studies have shown that the most persistent cause of "sickness" or mortality relates to finance, particularly working capital. Since access to bank funds is not easy. Despite the priority given to small industry, banks are prone to impose forbidding conditions for these units.

Although finance is clearly the main problem, there are other contributory factors. There are failures in respect of such industrial operations as assessment of project viability, management and marketing. Since the units affected are small they have a smaller sustaining ability and hence are more prone to sickness and death. This is recognised by the Government, which has started multi-purpose service organisations at what could be called grass-roots level. Because in the past the multiplicity of schemes and agencies to help small industrialists have only confused them, the Government has decided to shift the focal point of development for small industry away from state capitals and cities to district headquarters (a district is the basic administrative unit in the country).

Mr. Fernandes plans to set up a district industries centre (DIC) in each of the 584 districts in the country which will provide under one roof all the services and support needed by small and cottage industry. The services include economic investigation of the district's raw materials and other resources, supply of machinery and equipment, provision of raw materials, arrangements for credit facilities, an effective set-up for marketing and a cell for quality control, research and extension.

The centres will have a separate wing for looking after the special needs of cottage and household industries, as distinct from small industries. It will establish close links with the country's "development blocks" (the basic units for development of rural areas) on the one hand and with specialised institutions on the other.

This experiment has just started and there is no evidence available yet to determine its effectiveness. The scheme seems unexceptionable in theory, but much will depend on the manner of its functioning since it is the lynchpin of the move to shift emphasis to development of small industry. Trained and experienced personnel to man the centres are the obvious need and these will be drawn from any available source, notably established large industrial units. This is a sensible move and their experitse will be available to the small man, although the role of the experienced executives cannot be anything but advisory since they cannot devote all their time to running the centres.

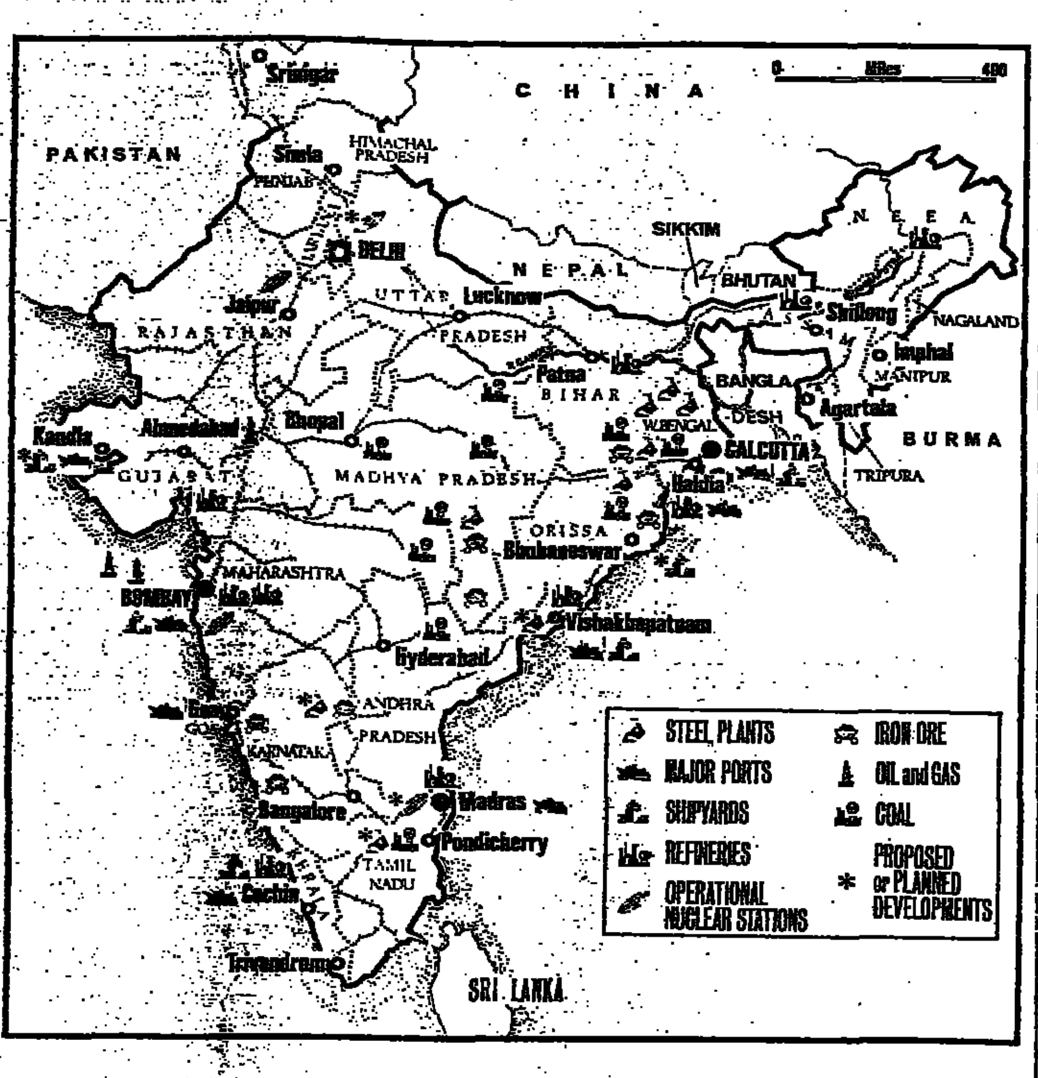
Linking small units to larger ones has in fact been suggested as a method of promoting them. This is not so much a question of setting up ancillaries, which is the obvious way that larger units can farm out parts of their operations to the smaller man, but also of "adopting" small units either in the same field or in nearby locations.

There is a strong body of opinion that feels the small sector cannot prosper until it is provided with necessary infrastructure and that this can be done economically only by large enterprises, whether in the public or private sectors. The inter-relation of the small sector with other sectors of the economy cannot be ignored. Most of the industries reserved for the small sector are, in fact, dependent on the larger manufacturers as suppliers of inputs and buyers of intermediaries produced.

Even some of the finished goods manufactured by the small sector are taken by the larger units and this determines the location of small industries mainly around them and in large cities, something that the Government is determined to avoid. On the other hand, as the Federation of Associations of Small Industries recently pointed out, while the small sector produces as many as 2,520 items, only 564 have been reserved exclusively for it. The selection has been carefully made, officials point out, to ensure that small units prosper since there is sufficient demand for the items.

Among the items, however, are many already being produced or marketed by the larger units and even the multinationals. This duality of dependence and competition has long been a destabilising factor in the promotion of the small sector and is one of many problems still to be solved.

K. K. Sharma



BASIC STATISTICS

Area	1.26 sq. miles	Trade (1977):	
Population	598.1m (1976)	Imports	Rs. 51bn
GNP (1976)	Rs. 716.83bn	Exports	Rs. 49.5bn
GNP per capita	Rs. 1,200	Imports from UK	£277.89m
Currency:	£1=Rs. 15.480	Exports to UK	£384.14m

Rural

CONTINUED FROM PAGE 1

labour can be both militant and volatile, there is no basic problem about motivation, attitudes to work, or factory discipline; agreements made, often after long and difficult negotiations, are generally honoured.

Whether Indian industry, and the economy as a whole, makes the best use of the opportunities now available will, of course, be profoundly influenced by the political situation. Some industrialists in the public as well as in the private sector, complain about the lack of clear direction from the centre. The recent dissensions within the Janata Party, while partly a matter of personalities, also reflect a conflict of views about development strategy; a number of state Governments, which have considerable economic powers of their own, are also going through an unstable period.

The direction of the Government's strategy, with rural development as its centrepiece, commands general support. But to make it work requires a degree of commitment and organisation at all levels, especially in the villages themselves, which has often been lacking in the past. The resources and skills are available, but the heart of the problem lies in implementation.

Labour relations deteriorate

IN THE past year the number of days lost through strikes and lockouts has climbed back to levels typical of the years before Mrs. Gandhi's Emergency. The government has had difficulty getting to grips with some of the problems but was due to introduce in Parliament this month a long-promised and much-delayed Bill to overhaul the whole system, offering a chance of improvement. Judging by the issues still causing trouble, though, labour problems will continue to dog Indian industry's progress.

Although the incidence of labour trouble is by no means universal, workers have long resorted to strike action and, increasingly over the past decade, to "gherao" ("encirclement") tactics against employers. Disputes can be lengthy, perhaps lasting months on end, and occasionally violent. Short of another emergency, this scene seems unlikely to change.

Employers too have not stinted in taking direct action. Last year just over half the number of man-days lost were the result of lock-outs, and the proportion over the past few years has rarely been under a third. With the total number of man-days lost in 1977, roughly the same at 21.21m as in 1975, 1973 and 1972—the 1974 figure before the Emergency was much higher—the figure for days lost purely as a result of strikes is actually the lowest since before 1970, once the low 1976 emergency figure is discounted.

This point is not lost on the Government. Mr. Ravindra Varma, the Labour Minister, drew attention in Parliament last April to the high lock-out rate when he came under pressure from critics. His line marked a change from the Government's earlier stock explanation for the resurgence in the number of man-days lost, namely that it was a "release of pent-up frustration" by the workers following the Emergency.

But one cause of the high lock-out rate, on which Mr. Varma did not dwell, is the law requiring employers to obtain permission to lay off workers or to close down if more than 300 workers are involved. The suggestion is that with such permission unlikely to be granted, employers have resorted to lock-outs. Certainly governments in India put a high premium on jobs, tending to take over factories rather than allow them to go to the wall.

Labour problems are not helped by the hopeless fragmentation of the unions. Employers in India have sometimes been criticised for following a "divide and rule" policy. But the workers have not helped their own cause. They are not grouped by function or even industry—a total of five trade unions represents coalminers at the national level, for example. Nor have the unions shaken off the close association with political parties going back to the struggle for India's independence and subsequent party rifts.

As a result unions compete with each other for the allegiance of workers in plants all over the country, and the employers actually complain about the "inter-union rivalry" that arises as the unions' fortunes changed. Changes in the relative strengths of unions are expected as soon as State Governments change hands, and the same has begun to happen with the installation of the Janata government nationally. During the emergency trade union leaders were locked up and their places were taken by people more sympathetic to the Gandhi Government.

Avoided

Employers also complain about the intervention of "outsiders." This partly reflects their own aim of preventing employees becoming too well organised, but as Naval H. Tata, the president of the Employer's Federation of India, said in May: "It is pathetic that even after decades of trade union activity in our country there has been no visible progress of leadership from within the ranks of the workers." The most successful companies in industrial relations terms are generally those who have avoided inter-union rivalry in their plants and have tried to bolster the authority of the local leaders.

Last month Hindustan Motors in Calcutta was hit by just these kinds of problems. The Centre of Indian Trade Unions (CITU), associated with the Marxist party which now rules in West Bengal, clashed with a more extreme Left-wing anarchist grouping of Naxalite workers determined to upset production as part of their strategy to discredit what it regards as a "sell-out" Government. The State Government, anxious to resist labour unrest as part of its effort to prove that it can govern and to restore Calcutta's image as a place to invest, intervened and sent along its Labour Minister to help the president of Hindustan Motors settle the dispute. Police had to patrol the plant for several days to help keep the peace.

CITU's growing support at the national level is naturally viewed with some concern by a few of the country's well-established unions, including the Association of Indian Trade Unions (AITUC), linked with the Moscow-oriented Communist Party of India, and the Indian National Trade Union Congress (INTUC), which has diversified its support (and probably diluted its strength) to the point where it can claim to be politically neutral while retaining its association in the public mind with Mrs. Gandhi's Congress.

There is also concern as the ruling Janata Party moves to spread its own influence in the union movement. After coming to office, the Government reconvened the almost-lapsed Tripartite Labour Conference of national and state governments, employers and unions. This produced a 30-member committee to recommend a comprehensive industrial relations law that would rationalise and improve existing legislation. But the committee generated a report which simply documented the wide gaps between and among each of the groups represented.

Out of this two developments have occurred. Janata-associated unions have first of all put themselves more firmly on the labour map. Ten years ago four unions dominated at the national level—AITUC, INTUC, the United Trade Union Congress (UTUC) and Hind Mazdoor Sabha (HMS). By late last year 11 unions were claiming recognition at the national level.

The Government has ordered the first "verification" procedure since 1968 (it is supposed to happen biennially) to establish their membership. On the outcome hangs the key to representation by unions on national tripartite bodies, but the government has already conferred *de facto* recognition on them through inviting them to the reconvened Tripartite Labour Conference in the first place.

Secondly, the Janata Industrial Relations Bill which the creation of the 30-member committee foreshadowed has been badly delayed. This has ostensibly been because of the lengthy and detailed process of rationalising various pieces of labour legislation to be incorporated into the new Bill. But it has also been because the Government has had to arbitrate on the issues which produced no agreement. It was expected to introduce the Bill in Parliament in the session which opened last month and finishes next week.

To judge by well-informed leaks to the newspapers, the new Bill will stipulate that a minimum of ten workers will be required to form a union in places employing up to 100 workers, and a minimum of 10 per cent where more than 100 workers are employed. A union will be able to act as the workers' sole bargaining agent if at least 60 per cent of them owe allegiance to it (as determined by a secret ballot), and as chief negotiating agent if the figure is above 50 per cent. A "composite" negotiating agent would be necessary if support is less than 50 per cent.

A list of unfair practices will also be drawn up which will apply to both employers and employees.

How far all this will go given existing disagreements is uncertain. In any case other more immediate issues have come to dominate the labour scene. The most important is what in India is called "bonus." The Janata Government restored the 8⅓ per cent annual bonus (a 13th month's pay) which Mrs. Gandhi had ended during the Emergency. This was payable whether the company concerned could afford it or not, a matter of concern to the employers. But it did not apply to people like railwaymen and postmen, who did not count as industrial workers. Nor was it acknowledged by the Government as a deferred wage. And it was to apply for one year only.

The unions dispute all these points. Some demand that the bonus be offered more widely, something the Government has resisted because it would cost hundreds of millions of pounds to pay a 13th month to all public sector workers. Some also insist that it be called a deferred wage, in order to head off any Government move to abandon bonus payments in favour of some sort of spread-out pension scheme — something the unions would accept only as an addition to the bonus payment, not instead of it.

By last month the Government had still to announce its decision on bonus payments for money earned in 1977, the restored payment having applied to 1976 only. A decision was expected by this week, in time to amend the relevant Act before the Parliamentary session end ahead of the holiday season, when the lump sums would be most welcome. Government permission was widely expected, but only for another year pending a review in September of income and wages policy based on the Bhootalingam report of last May.

The Bhoothalingam report, which the Government insists was a study and no more, has proved controversial on the labour front. When the group was originally chosen there was a hue and cry because no unionist was appointed. When one was, the outcry grew because the choice had not been made in consultation with the unions. The unions refused to co-operate.

This had an indirect impact elsewhere, illustrating how labour relations can become as confused in India as anywhere else. In a separate development in mid-May, public sector unions had issued a notice that they would strike on June 28 over guidelines issued by the Bureau of Public Enterprises detailing what was and was not negotiable in the forthcoming pay round. The unions had decided their negotiating power was being withdrawn.

When the Bhoothalingam report then came out a few days later recommending (among other things) that bonuses be replaced by long-run benefits like retirement pensions, the issues became confused and what has been called Janata's first confrontation with the Indian working class occurred as tempers rose. Two days before the strike was due four Government Ministers met the unions—Mr. Varma, the Labour Minister, Mr. Patel, the Finance Minister, Mr. Bahuguna, the Petroleum Minister, and Mr. Fernandes, the Industry Minister. They explained that the instructions on pay were "merely guidelines," clarified the status of the Bhootalingam report and the strike was averted.

The unions have since exercised their reasserted right to negotiate, in a settlement at Bharat Heavy Electricals. High-level intervention has also been necessary to head off a strike threatened by coalminers for July 17 and an earlier work-to-rule by Food Corporation of India employees. Whether such intervention will be necessary under a reformed regime of industrial relations is not easy to predict — much obviously depends on how readily it can be implemented.

The need for high-level intervention nevertheless illustrates how delicately balanced is India's industrial structure, to the point where even with fragmented unions industrial action or the threat of it can invite Ministerial involvement of one sort and another. There are a good many employers who, despite all the difficulties, have achieved stable industrial relations in their factories, and clearly the main responsibility for avoiding strikes and encouraging a constructive dialogue between management and labour lies with individual companies. But efforts at this level are more likely to succeed within an orderly collective bargaining framework, which can only be established at the centre.

Chris Sherwell


Workers at the Rishikesh plant of Indian Drugs and Pharmaceuticals.

MAN-DAYS LOST

	Total (m)	By strikes	By lock-outs	In public sector	In private sector	In central sphere	In State sphere
1970	20.56	14.75	5.81	2.06	18.50	2.94	17.63
1971	16.55	11.80	4.74	2.25	14.29	1.93	14.61
1972	20.54	13.75	6.80	3.35	17.20	1.80	18.74
1973	20.63	13.86	6.76	3.39	17.23	2.92	17.70
1974	40.26	33.64	6.62	13.09	27.17	11.36	28.90
1975	21.90	16.70	5.20	2.15	19.75	1.55	20.35
1976	12.75	2.80	9.95	0.87	11.88	0.37	12.38
1977*	21.21	10.54	10.68	3.90	17.31	1.89	19.32

* Provisional. N.B. The totals may not necessarily tally due to rounding off of figures.
Source: Director, Labour Bureau, Simla.


Mr. Moraji Desai, Prime Minister of India.

The private sector

A FEW weeks ago Mr. G. D. Birla, one of the leading industrialists in India, issued an extremely gloomy statement about the future of the private sector. "The present Government," he said, "though not socialistic, still cannot get rid of the bad features of socialism because of the legacy from the past. Unless this pattern is changed drastically, there is no scope for the growth of the private enterprise which alone can promote industrialisation."

Mr. Birla pointed to the numerous rules and regulations which inhibited expansion, to the extreme difficulty of raising new money on the stock market and to the concentration of savings in the hands of Government financial institutions, part of whose loans were convertible into equity. "The general impression all over the world," he said, "is that the investment climate in India simply does not exist. This view is not unjustified."

At about the same time Mr. George Fernandes, Minister of Industry, was insisting that the investment climate was excellent. He said that the facts were quite contrary to the expressions of gloom coming from private sector businessmen. He pointed out that his Ministry had received a large number of applications for expansion from leading business houses, including the Birla companies.

This exchange illustrates, in an exaggerated form, the apparent lack of rapport between the business community and the Central Government—a lack of rapport that has existed long before the Janata Party took office. Some businessmen feel that their contribution to the country is deliberately misunderstood and misrepresented, that profit is a dirty word, that those entrepreneurs who took great risks in the past and built up substantial industrial undertakings are now being discriminated against out of feelings of envy or spite. On the other side is the view held by many politicians and civil servants that the large business houses have enriched themselves by dishonest means, have exerted undue political influence and have used the Government's financial institutions and regulatory system to their own advantage.

How seriously should this exchange of insults be taken? "Businessmen are too inclined to blame the Government for everything," the chairman of a Calcutta-based company told me; "they forget that there is a fairly well established framework which gives the private sector plenty of room to expand. There are minor variations from time to time, but the big companies have least to complain about since they have grown fastest; the more they grow, the more freedom they want to grow even further."

EMPLOYMENT IN THE ORGANISED SECTOR IN 1977

	Public sector	Private sector
Plantations, forestry	474	837
Mining, quarrying	749	130
Manufacturing	1,222	4,157
Construction	1,010	82
Public utilities	554	35
Transport and communication	2,465	71
Trade and commerce	607	459
Services	6,739	1,082
Total	13,819	6,854

Controls

Despite Government controls and slow economic growth the large Indian houses—Tata, Birla, Thapar, Shriram, Mahindra, J.K., Kirloskar, Mafatlal and others—have continued to do well. To some extent this may reflect their ingenuity in finding a way round the controls, but India is fortunate among developing countries in having a strong entrepreneurial tradition. Several of the big houses have diversified into a host of industries, a practice which is in part the result of the licensing rules (restricting expansion in areas where they are already strong), but which also stems from the old British managing agency system. The newer entrepreneurs, who started their businesses since independence, have been more inclined to specialise in a particular sector of industry.

In the early days the growth of industrial entrepreneurship came particularly from three communities, the Parsis, Gujeratis and Marwaris, and they continue to carry great weight in the business community, especially the last of the three. It was a Parsi, Jamshedjee Tata, who built India's first steelworks in 1911; the company which he started, Tata Iron and Steel Company, respite curbs on its expansion, continues to perform better than the public sector steel plants created after the Second World War. But entrepreneurial skills in India are by no means confined to the large houses. Even without the support they receive from the Government (including tax concessions), small-scale manufacturers have proved themselves highly competitive in certain fields. "It is misleading to call them unorganised," a manufacturer of pumps and diesel engines told me; "they can supply the local farmer with a cheap product which is reliable enough for his purposes, and we find it difficult to compete with them." The development of the diamond polishing industry, mostly situated in the rural areas of Gujerat, is another remarkable example of initiative by local entrepreneurs.

The big houses are frequently attacked for what is called family management and Mr. George Fernandes, in particular, has called for a much greater degree of "professionalisation" in the appointment of top executives; he has suggested that the public financial institutions which lend money to big companies should take a more active interest in their management. It is true that some houses tend to be dominated by members of the same family or community, but there is a trend towards greater reliance on professional executives, in the private as well as in the public sectors. The increasing complexity of large-scale industry, especially when overseas projects are involved, demands the recruitment of the best qualified managers, whatever their background.

Capital

All companies with a capital of more than Rs.200m (about £14m) are subject to the Monopolies and Restrictive Trade Practices Act. When they want to expand their operations or to start a new venture, they have to seek approval from the Company Law Board. Normally they are free to expand in the "core" sectors of industry, but in other areas, if their proposals are likely to be detrimental to the interests of medium- and small-scale entrepreneurs, they will be rejected. Where the Board is in doubt, the proposal may be referred to the Monopolies and Restrictive Trade Practices Commission for fuller study: In one recent case the Commission was asked to examine a proposal by a large company to manufacture cigarette-making machinery; since there were already several established manufacturers, the question at issue was whether the additional capacity was needed. The proposal was eventually approved subject to certain conditions.

The MRTP procedures are regarded by some houses more as an irritating obstacle to be overcome than as a positive disincentive to expansion. The fact is that the big companies have the financial resources and the management to expand into new fields and the Government needs them to do so. In the past few months the Ministry of Industry has invited and approved a number of applications from the large houses to build cement plants, because investment in new cement capacity is badly needed; and only the large houses can afford to undertake it. The price controls were changed to make the investment attractive, and even a company with a large share of the market, Associated Cement, is being allowed to expand.

Cement

The cement issue does, however, illustrate the lack of consistency in Government policy which businessmen justifiably resent. Private sector investment, they say, cannot be turned on and off like a tap; they need a stable framework which provides the opportunity to earn a fair profit. Mr. Fernandes accepts that price controls have been counter-productive in several sectors; in effect, they have stimulated investment in non-essential at the expense of essential products. While he is not prepared to let the law of the jungle prevail he is trying to move towards a more flexible system, using the Bureau of Costs and Prices as the monitoring agency but without interfering in every price decision.

The same need for simplification applies to other controls. The Government's decision to set up a committee on controls and subsidies, the Dagli Committee, implies a recognition of the fact that the existing plethora of controls places an unnecessary burden on industry. Yet another committee, the Jha Committee, has recommended radical changes in the system of indirect taxation. The cascading effect of the different taxes—customs duties, excise duties, sales taxes imposed by state governments and other levies—have had a distorting effect both on final consumer prices and on the pattern of investment.

To expect the present or any foreseeable Indian Government to proclaim the virtues of capitalism and the market economy is clearly unrealistic. The strong desire for a more egalitarian society is bound to create tensions, as the present controversy over top people's salaries illustrates. There is a lurking anxiety among businessmen that short-term political pressures may force this or some other government to nationalise a major company or industry, just as Mrs. Gandhi nationalised the banks. But present trends are not wholly discouraging. The movement, albeit a halting one, is towards a pragmatic acceptance of the private sector's contribution to the economy and a gradual move towards a framework of rules which is less restrictive and more promotional.

G.O.

Cutting rice in Southern India.

Improved performance in the public sector

THE PUBLIC sector of industry consists of some 140 enterprises with a total employment of 1.5m people, out of a total labour force in the factory sector of some 6.5m. Most of these undertakings were deliberately created as part of the industrialisation programme; this applies particularly to steel, heavy engineering and chemicals. Except in a few sectors such as coal mining state control over the commanding heights of the economy has not been achieved by nationalisation. But the list of public sector undertakings includes a number of companies, especially in textiles and engineering, which have been rescued by the Government from financial difficulties.

During the middle and late 1960s the performance of the public sector came in for a great deal of criticism inside and outside the country. The bad choice of investments, inadequate project preparation, inexperienced management, bureaucratic interference from the centre—these and other weaknesses produced poor financial results. In some cases there were production shortcomings which held back the growth of the economy. While these weaknesses have not been completely corrected, performance has greatly improved in the last few years. Even private sector businessmen, while they resent having to deal with monopoly suppliers in certain sectors, admit that in the last five years the quality of management has improved.

Analysis

The creation of the Public Investment Board in 1972 has led to a more sophisticated analysis of investment proposals and to speedier procedures for obtaining decisions on them. The Bureau of Public Enterprises, an agency set up under the Ministry of Finance, has the responsibility for scrutinising the performance of all public sector enterprises. (Its three volume annual report, containing a wealth of statistics, information and analysis, is a model worth imitating by developed countries such as the UK).

The Bureau has helped to instil tighter management disciplines and to upgrade the quality of financial and economic analysis in the public sector. Pricing policy has been reformed. In fertilisers, for example, prices have been set so that plants operating at 80 per cent of capacity, and assuming normal inputs of raw materials and power, should achieve a 12 per cent after tax return on net worth. In cement, steel, pharmaceuticals and other areas more rational pricing policies have been introduced.

Appointments to senior management positions are the responsibility of the Minister in the relevant Government department, but he is guided and influenced by the Public Enterprise Selection Board, whose recommendations are rarely ignored. Despite low salaries compared to the private sector (especially at the top levels), the public sector has been able to attract and retain executives of high calibre. One advantage which public sector enterprises have over some large private companies is that senior positions are genuinely open to all candidates, whatever their background.

Dominant

One of the worst aspects of public sector enterprises in the past has been their lack of attention to marketing. Operating in a protected market in which they were often the dominant supplier, these companies were under no pressure to sell: they merely had to produce. While a degree of complacency in this respect still exists, there has been a distinct change for the better. Where competition does not exist, as in oil distribution, the necessary disciplines have to be self-imposed. But some of the companies now have private sector competition in much of their business. For example, Bharat Heavy Electricals faces competition in all segments of its business except for turbine generators. Some of the public sector companies, because of the recession at home, have been obliged to compete for export business and this has sharpened their competitive edge. The new import policy should also have a salutary effect.

As an indication that the public sector had "come of age," it was decided last year to withdraw the price preference system, whereby Government undertakings were required to buy from public sector enterprises if their prices were no more than 10 per cent higher than those of private suppliers, subject to satisfactory quality and delivery. This was replaced by a purchase preference scheme, whereby the public sector supplier was asked in effect to match the lowest price offered, but this too has now been withdrawn.

Some serious problems remain. One is the ever-present danger of political and bureaucratic interference. "Most managers consider they are doing exceptionally well if they get 80 per cent of their decisions right," says the chief executive of one public sector enterprises, "but our masters insist on 100 per cent." The result is that people are reluctant to take any decision at all, for fear that it will infringe some rule or that, if it turns out to be wrong, it will lead to accusations of corruption.

Formal and informal interference from Ministers and politicians still seems to be extensive. "I would prefer a system where the Government *set the policies and left it to the Board to carry them out,*" one manager told me, "but we are a long way from that situation."

There is a feeling that the bureaucrats are more interested in matters such as how much the company spends on entertaining foreign customers, than in the real problems of the business. India is fortunate in that the public sector has attracted some outstanding individuals, in companies such as Hindustan Machine Tools and the Oil and Natural Gas Commission, who have been strong enough personalities to resist interference, cut through the red tape and build up highly successful enterprises. But, as in the UK, the right balance between accountability and interference is elusive.

A second problem is the virtual impossibility of closing down companies or factories which have no chance of paying their way. There have been some investments which are now recognised to be mistakes; one persistent loss-maker is Bharat Ophthalmic Glass, which makes ophthalmic blanks. In one or two cases the Parliamentary Committee on Public Enterprises have recommended that undertakings should be closed down, but the political obstacles are formidable. The nearest the Government can come to an admission of failure is to merge a sick company into a successful one.

Some of the earlier public sector undertakings were set up on optimistic assumptions about industrial growth and their capacity has been under-utilised. This applies, for instance, to the Heavy Engineering Corporation at Ranchi, set up with East European aid in the late 1950s and geared to a steady increase in Indian steel-making capacity which has not materialised. This is a large undertaking employing more than 20,000 people; the need to use its machinery for purposes for which it was not designed has been expensive.

The conflict between commercial and social considerations is most acute in the case of lame ducks, or, as the Indians call them, companies which go sick. On numerous occasions the Government has stepped in to protect employment in companies which, whether through mismanagement, cupidity or a change in market conditions, had run into a financial crisis. Often the responsibility lies with the former owners (including foreign ones) who have milked the company dry and ignored the need to modernise or to diversify.

Original

In West Bengal the Government is the owner of three large, formerly British-owned engineering companies — Jessop, Braithwaite, and Burn Standard —whose original business had been the supply of wagons to the railways; they employ a total of some 36,000 people. Turning these companies round, with their legacy of old-fashioned plant and low labour productivity, is a formidable task; since retrenchment of labour is virtually impossible, the main priority is to introduce new products (often with foreign technical collaboration) and thus increase the factory throughput. A not dissimilar situation

CONTINUED ON NEXT PAGE

THE PATTERN OF INVESTMENT
at the end of 1976-77

	Amount (Rs m)	Per cent of total
Steel	28,643	25.8
Chemicals and pharmaceuticals	20,762	18.7
Coal	12,771	11.5
Heavy engineering	8,033	7.3
Minerals other than coal	7,042	6.4
Petroleum	6,897	6.2
Transport equipment	3,354	3.0
Medium and light engineering	2,158	2.0
Consumer goods	1,782	1.6
Agro-based enterprises	115	0.1
Service enterprises	19,402	17.5
	110,965	100.0

TOP TEN PUBLIC SECTOR ENTERPRISES IN TERMS OF SALES (1976-77)

	Rs m
Indian Oil Corporation	26,705
Food Corporation of India	31,751
Hindustan Steel	10,789
State Trading Corporation	10,739
Minerals and Metals Trading Corporation	6,435
Bharat Petroleum	5,221
Hindustan Petroleum	3,114
Bharat Heavy Electricals	4,702
Air India	2,723
Shipping Corporation of India	2,558

Hindustan Machine Tools

WITH THE Government's stress on labour-intensive small-scale industry it is somewhat surprising to visit the Bangalore factory of Hindustan Machine Tools, one of the leading state-owned companies, and observe the development work on numerical control, machining centres and other forms of automation. But I was assured that these were not designed to cut out labour, but to improve accuracy and efficiency in the machining process.

HMT has come a long way since it first started making lathes under licence from Oerlikon, of Switzerland, 25 years ago. In the early years the company gradually broadened its range into milling, drilling and grinding machines through licences from many of the world's leading manufacturers. It was not until 1966 that HMT produced the first machine tools of its own design—electrically controlled milling machines for the Government's small arms factory. Orders from the Ministry of Defence Production helped the company establish itself as a manufacturer of more sophisticated machine tools.

HMT has expanded its own research and development programmes and its need for foreign technology is mainly confined to certain technologies such as hydraulics or electronics, rather than complete machine tools. However, an important agreement was made recently with Cross of the U.S. for the manufacture of special purpose machines and transfer lines for mass production; HMT co-operates with Cross in export markets and this has brought in a substantial order from Iran. HMT is currently exporting 10-15 per cent of its machine tool production, but aims to raise this to at least 20 per cent. Competing for exports is seen raise this to at least 20 per cent. Competing for exports is seen as a way of testing the company's technological competence.

HMT has diversified within the machine tool industry and outside it. Watch production was started in 1961 with the aid of Citizen Watch of Japan and this diversification, made at the request of the Government, was particularly helpful in the severe recession of 1967-70 when for the first time the company slipped into the red. After this experience the management looked for business which would be more stable than machine tools: in addition to expanding watch production HMT has set up plants for making printing machinery, tractors (in collaboration with a Czech manufacturer) and lamps. The company is engaged in a project for making metallurgical instruments.

Machine tools now account for less than half HMT's business, but the company believes it has evolved an appropriate structure for managing a diversified business. There have been suggestions that HMT could diversify even further, into the manufacture of cheap, rugged passenger cars, for sale in India and for export. Since the company is already making tractors, diesel engines and most of the machine tools required for car manufacture, the technical problems would be manageable, but co-operation in design with a foreign car producer would be essential.

Such a project would have to be justified on commercial grounds, for the HMT management is determined to maintain its financial independence. Its targets, set out in the last annual report, include an annual growth of 10 per cent in sales, a minimum return on capital employed of 18.5 per cent and a 10 per cent dividend to be paid from cash surpluses after meeting capital spending commitments. In 1976-77 HMT made pre-tax profits of Rs80m (about £5m) on sales of Rs907m (about £66m).

The setting up of HMT was strongly opposed by the private sector—a British machine tool engineer predicted that it would be a financial disaster—but thanks to able and determined leadership it has managed to reconcile its national responsibilities as part of the public sector with commercial drive. Although it is by far the largest Indian machine tool manufacturer, it has private sector competition in most of the product range and is now likely to face greater competition from imports.

G.O.

Opening up markets to foreign competition

GOVERNMENT OFFICIALS point with some pride to the fact that at a time when most of the developed countries are adopting protectionist measures India is taking steps to open up its internal market to foreign competition. The partial liberalisation of imports has three main objectives, as explained in the Draft Five Year Plan: first, to transform part of the country's foreign exchange reserves into resources for development, "exploiting our ability now to take make-or-buy decisions on economic grounds"; secondly to reduce industrial costs; and thirdly to "provide an element of competition in certain sectors of industry whose efficiency may be suffering on account of excessive protection."

The moves so far announced are gradual and controlled. There is no question of exposing Indian industry as a whole to the full blast of international competition. "We are applying antibiotics," an official in the Ministry of Industry commented, "but we must be careful not to kill the patient." Nevertheless the new arrangements announced in the last few months and now being implemented mark a significant change in India's trade policy and create genuine opportunities for importers.

Under these arrangements 14 industries, mainly in priority sectors such as power generation, fertilisers, cement, and oil exploration, are permitted to invite global tenders for capital equipment; the list of industries is shown in the accompanying table. In these cases all bids will be scrutinised by a technical committee in the Ministry of Industry, but the assumption is that if the price and delivery offered by a foreign supplier is superior, it will be preferred; the fact that an indigenous supplier can produce the equipment will no longer be decisive.

In addition, a number of capital goods has been placed on open general licence (OGL). Some items remain banned or restricted, but the list includes a variety of machine tools, textile and garment-making machinery, leather-processing equipment, and the like, which are required by Indian manufacturers for factory modernisation. At the same time procedures for importing raw materials and components have been simplified and partially liberalised, with provision for automatic increases in allowable imports to provide for expansion and price increases.

The next logical step would be some reduction in the level of tariffs. Most basic raw materials and machinery are subject to a tariff of 45 per cent, although a few items were brought down in the last budget; duties are generally 75 per cent on intermediate goods and 120 per cent on processed consumer goods.

Suggested

Several industry associations have pointed out to the Government that the 45 per cent duty on capital goods adds unnecessarily to production costs and discourages investment in import-substitution industries. They have suggested that where the importation of machinery is permitted under OGL and approved after due scrutiny, the tariff should be substantially reduced, even in cases where similar items are produced domestically.

Parts of the engineering industry have demonstrated their ability to compete in international markets and in these sectors the leading companies have no serious qualms about coping with imports. They accept that the years of blanket protection have led to bad habits and that they need the stimulus of import competition, or at least the threat of it, to keep them on their toes. There is anxiety about dumping, especially from East European countries, but Government officials believe that their existing procedures will enable them to deal with this problem when it arises.

It is too early to judge the impact of the new policy. In some sectors, such as viscose and polyester fibres, it appears that the profitability of domestic producers has been squeezed. Fears have been expressed that those sectors where profitability is already depressed by slack demand and low capacity working could be damaged by a sudden upsurge in imports. Will the authorities permit companies which cannot compete to go under?

The authors of the Draft Five Year Plan state confidently that "industries which are basically unviable or cannot stand up to limited international competition in certain specified product areas which the liberalised import policy will create will be allowed to close down." But the political and social obstacles are obvious. "You in the UK are not prepared to abandon old industries like shipbuilding," a Ministry of Commerce official told me, "and we are certainly not going to follow an import policy which causes plant closures and unemployment on a large scale."

India's approach to imports cannot be divorced from industrial policy as a whole. Largely because of the chronic shortage of foreign exchange encouragement of industry has, in the past, been based on the principle that anything which can feasibly be produced in India should be. This has brought about a remarkable degree of self-sufficiency and a highly diversified range of industries. But there has been little conscious effort to develop industries in which India has a comparative advantage, either because they are labour-intensive or because they are based on locally available raw materials, or both. In several of these industries, such as cotton textiles, India's share of world trade has declined while that of other developing countries, notably South Korea and Taiwan, has moved ahead. The question now is whether, with the improved availability of foreign exchange, India can afford a less rigid policy which pays more regard to the principle of international specialisation.

Such a policy would imply, among other things, that manufacturers who achieve international competitiveness should be encouraged to expand, even if this means increasing their share of the domestic market; they must also be permitted to earn sufficient profits at home to support the development of export business. This applies particularly to engineering, which should certainly continue to be one of the fastest growing items in India's export trade, but which suffers from some weaknesses in relation to scale of production and product development.

More generally, a policy based on international specialisation would imply a selective approach to export promotion, with special emphasis on such items as clothing, jewellery and other handicrafts, marine products, finished leather and leather goods, where India's competitive position is strong and market prospects good.

Meanwhile the Government's immediate concern is to ensure that the size of the foreign exchange reserves does not engender complacency over exports. In 1977-78 the growth of exports was only 5 per cent compared with 27 per cent in the previous year, but the decrease is partly explained by the curbs which the Government imposed on a number of items, including cotton, certain food products and cement, which were in short supply in the domestic market. While these may have been justified as a means of checking the rise in domestic prices, they illustrate one of the criticisms which has been made of India's export policy—its lack of consistency.

In a recent submission to the Government the Federation of Indian Chambers of Commerce and Industry called for an integrated export strategy which should include the following elements: stability of policies; maintenance of India's credibility as a steady supplier of quality products in accordance with the buyer's specifications; reasonable profitability; enlargement of the export production base; provision of reasonable facilities in the shape of cash compensatory support; and adequate port and shipping facilities.

The evolution of India's trade policies will be profoundly affected by developments in the world economy. There is anxiety about the growth of protectionism, particularly in the U.S., where it could affect not only such items as textiles, garments and footwear, but also some engineering products. Unless these tendencies are checked, resistance to import liberalisation within India is bound to grow and the process of dismantling long-established barriers could be put into reverse.

G.O.

Engineering apprentices at the Tata-Mercedes-Benz factory at Jamshedpur.

EXPORTS BY DESTINATION
(Per cent shares)

	1971-72	1976-77
Western Europe	20.3	29.8
Eastern Europe	21.4	15.4
Americas	19.8	12.5
Middle East	6.4	15.6
Asia, Oceania	25.4	22.4
Africa	6.7	4.3

FOREIGN TRADE
(Rs bn 1976-77)

Main exports		Main imports	
Engineering goods	55.4	Petroleum	141.2
Tea	29.3	Machinery and transport equipment	100.8
Leather and leather manufactures	29.2	Foodgrains	87.9
Apparel, hosiery	27.7	Metals, ores and scrap	41.1
Cotton textiles	25.4	Fertilisers	28.4
Gems, jewellery	24.2	Chemicals	22.9
Iron ore	23.8	Textile fibres	20.3
Oil cakes	22.4		

PRIORITY INDUSTRIES
(Those which may invite global tenders for capital goods)

Fertilisers.
Newsprint and paper.
Basic drugs.
Basic technical material for pesticides and weedicides.
Power generation, transmission and distribution.
Mineral exploration, mining and beneficiation.
Petroleum exploration and production.
Petrochemicals up to the stage of polymers.
Manufacture of professional electronic components.
Waste disposal and effluent treatment.
Materials handling projects at ports.
Sugar.
Cement and cement products.
100 per cent export oriented industries.

Public CONTINUED FROM PREVIOUS PAGE

would arise in the bicycle industry where several large private sector plants have run into trouble, though in this case the problem has arisen less from a change in market requirements than from new competition from small-scale entrepreneurs in Northern India. By the use of cheap labour and extensive sub-contracting they have achieved far lower production costs than the older, integrated plants which were built to manufacture most of the components in-house. There is speculation that the Government may set up a new bicycle corporation to take over the older factories and modernise them, perhaps investing in the more advanced types of bicycle for which there is a strong export demand.

Yet there is a growing realisation that policy towards sick companies has to be more selective and that some of them will have to be closed down. An interesting test case will be the handling of the National Textile Corporation, which owns more than 100 mills taken over from the private sector. While their weakness stems partly from Government policy towards the textile industry, which is now being revised, some of the mills are almost certainly beyond redemption.

Mr. George Fernandes, Minister of Industry, recently announced a new policy towards sick industries which involves a careful screening of possible rescue cases, both to establish whether there is a genuine prospect of viability and to work out remedial action which falls short of full-scale nationalisation. The financial institutions, which include a special agency for lame ducks, the Industrial Reconstruction Corporation of India, may be asked to provide temporary financial support and to oversee management changes. The take-over of sick units by healthy companies is being encouraged. A number of applications for such mergers have been submitted to the Government. In the longer term the willingness of the Government to let lame ducks die will depend on the speed with which new jobs are being created to absorb the displaced workers. In the rather sluggish climate of the last few years preservation of employment has been the overriding need. "If we can achieve a steady industrial growth of 10 per cent a year," a civil servant remarked, "we can be more relaxed about allowing market forces to operate."

G.O.

GROWTH OF PUBLIC SECTOR ENTERPRISES
(figures in Rs m)

	1972-73	1976-77
Investment	55,710	110,970
Turnover	52,890	145,420
Pre-tax profit	830	4,760
Return on capital employed	5.1%	9.7%
Number of employees	9.3m	15.5m

Problem guidelines for the financial institutions

PRIVATE INDUSTRY, particularly the larger groups, is often criticised by spokesmen of the Government for using funds given to them by the public financial institutions solely to promote its growth. It is possible that there is some substance in the charge that the private sector does not plough back an adequate proportion of its profits for modernisation and expansion, particularly in sectors where the incidence of "sickness" is high. Yet industrialists can hardly be blamed for borrowing from the public financial institutions. The capital market is relatively undeveloped in India and a large proportion of savings are siphoned off by Government agencies with the result that market borrowings by private companies are virtually non-existent.

More important, ever since Mrs. Indira Gandhi nationalised the 14 largest commercial banks in 1969, public financial institutions have a near-monopoly of loanable funds. The few Indian banks in the private sector are relatively small and their operations are confined to particular regions, while restrictions on foreign participation prevent them from becoming a major source of finance for industry. There are four major term-lending institutions in the public sector (and some specialised agencies). There is clearly discernible mutual suspicion between them and established industry, even though their primary role is industrial development.

A constant complaint against the financial institutions used to be delay in processing applications for loans. Procedural delays remain and are inevitable in cases when accountability is to the Government and the reserve bank which issue guidelines and norms the institutions must follow, although recently processing of applications has become speedier. The institutions are also limited by having to function in accordance with priorities prescribed for them. Under the Janata Government, for instance, they must cater increasingly to the needs of small-scale industry, although so far a faltering start has been made in this direction.

They are also bound by the Reserve Bank's credit policy which despite recent relaxations still calls for relatively high interest rates on most loans (the only exceptions being those to the "priority sectors" and selected "sick" industries). In the context of the large expansion in money supply and consequent pressure on prices during 1976-77, credit policy during 1977-78 continued to be directed towards restraining monetary expansion to the maximum extent possible.

This is sought to be done in a manner that does not inhibit investment and promotes production and exports while increasing supplies of industrial raw materials by exports. The aims have not always been realised — money supply is now again rising alarmingly because of the rapid growth of bank credit to the Government — because of other forces operating in the economy and continuation of the tight money policy is one of industry's main complaints, especially now that effective demand is rising and the need for finance is increasing.

But there are two major and related reasons why industry itself hesitates to borrow from the public financial institutions. The first is the threat that there will be a lowering of the debt-equity ratio from the existing 2:1. This is now being examined by the Government. The second is the right of the public financial institutions to convert loans into equity.

Guidelines issued to the institutions in June 1971 stipulate that the convertibility clause be inserted in all loan agreements where substantial assistance is given. With this goes the right to nominate directors on the boards of the manufacturing units concerned so that the financial institutions can actively participate in policy formulation.

The actual exercise of the option to convert loans into equity depends on the nature of the project and the expected yield on equity. The public financial institutions justify the convertibility clause on two main grounds. It enables them to prevent industrial units from going in the wrong direction and to monitor their progress. Secondly, and more important, they feel they should derive the benefits of profits made by use of funds provided by them.

In the case of new projects the option can be used after five to seven years, while in the case of substantial expansion the decision can be taken earlier. The portion of the loan to be converted varies from 10 per cent to 20 per cent of the total; in rare cases it can be more than 20 per cent.

Fears

The Government and the financial institutions feel that the fears of industrialists about the convertibility clause are exaggerrated. They argue that in most cases the option will be used only to take advantage of extremely high profits so that these can be used to replenish funds for further industrialisation. Only rarely will it be used actually to intervene in decision or policy-making, especially if the concerns are well managed. Privately, executives of the financial institutions point out that they do not have a sufficient number of qualified people to nominate to boards and this in itself is a major safeguard against excessive use of the convertibility clause.

If actual figures are a guide, there is some truth in this. Up to the end of September last the financial institutions added the convertibility clause to 1,236 old and new loan agreements involving a total assistance of Rs8.6bn. Until then they had exercised the option in just 64 cases and had nominated directors on the boards of 687 assisted concerns. But to industrialists this is sufficient cause for alarm.

That the clause has been a major hurdle in the way of seeking funds from the financing agencies is recognised by the Government. Evidence for this is available from the removal of the clause in agreements for "soft loans" provided by the financial institutions to "sick" units to encourage them to take recourse to public funds and nurse themselves back to health. Implicit in this is recognition that they would not seek the loans if the convertibility clause were to be inserted.

The "soft loan" is operated by the Industrial Development Bank of India (IDBI) to assist modernisation and rehabilitation programmes of the cotton textiles, jute, cement, sugar and certain engineering industries in association with the Industrial Finance Corporation and the Industrial Credit and Investment Corporation of India (ICICI). The three are the main term-lending institutions in the country, with the IDBI being the apex body.

Despite the removal of the convertibility clause, however, the "soft loan" scheme has made little headway. A working group which examined its functioning in the first 17 months said that the scheme had neither taken off the ground nor gathered momentum in respect of the cotton textile and jute industries. The Amount sanctioned to 59 cotton mills in this period was Rs462m but actual disbursement was just Rs29m.

There has been a slight improvement recently up to the end of June last. 49 concerns had been given "soft loans" totalling Rs266m, an improvement of eighteen per cent over the previous year. Yet this is hardly the result expected for plans to ginger up ailing sectors of the economy. The Industry Minister, Mr. George Fernandes, is unhappy over the manner and pace in which the scheme is being operated and remedial measures are expected.

The financial institutions themselves point out that their overall functioning is limited by the fact that they cannot operate on the basis of purely commercial norms, even though they are expected to show maximum profits. The government recently prescribed new guidelines which establish priorities for grant of credit to 33 sectors led by fertilisers, cement, sugar, essential drugs and electricity generation. Term loans have been ruled out for 13 industries including cars, air-conditioners, refrigerators, TV sets, toilet goods, cosmetics, alcoholic beverages, cigarettes and other consumer goods.

The guidelines say the Government attaches the highest importance to employment generation, particularly through rural and village industries. Lending institutions are required to ensure that adequate finance is provided to rural and village industries "as well as to projects where a large part of the benefit is likely to flow to the rural areas." They have also been told to examine the possibility of substituting automatic and capital-intensive processes with labour-intensive ones. Broadly speaking the guidelines classify industries as high priority, negative and public sector undertakings — the second category will find it almost impossible to get term loans.

Delicate

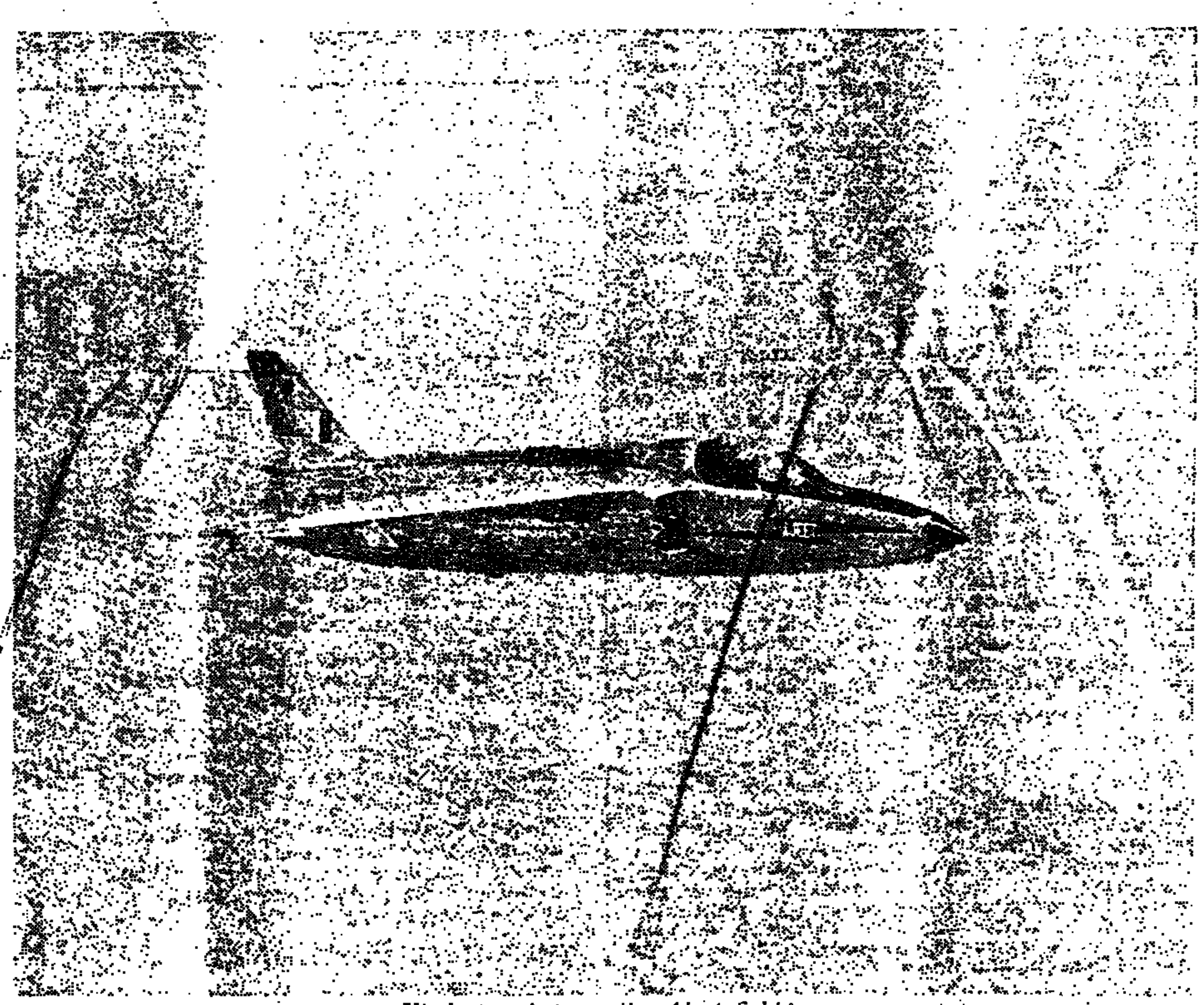
Such a classification adds difficulties in the way of lending to established industry since the financial institutions have to perform a delicate balancing act. Apart from the new guidelines, they must carry out normal functions such as refinancing and rediscounting, make sure that "backward areas" are developed and also play a promotional role by encouraging new entrepreneurs. The last is done, for instance, by the "seed capital assistance scheme" of the IDBI but its implementation is more difficult because of the careful screening that must be done.

There are separate schemes for providing rupee resources by way of direct loans to industries with import licences for balancing equipment, technology, consultancy services and drawings and design. In addition, foreign lines of credit have been opened with the help of the International Development Association, the "soft loan" affiliate of the World Bank.

The Industrial Finance Corporation has started an interest-free "risk capital foundation" to provide "seed-capital" for new entrepreneurs and technologists. The IFC also subsidises costs of assignments taken up by the technical consultancy organisations. There are schemes for making marketing studies for Indians abroad and a special division for promoting ancillary industries. Concessional finance and subsidies are available for projects envisaging commercial exploitation of indigenous technology and a host of other schemes designed to meet the needs of new Government policies.

All these still form just a small part of the operations of the financial institutions but the demands they make on them in terms of time and resources is not thought to be proportional to the benefits emanating from them. It is possible they will make headway in the future. But the industrialists feel that for the present they prevent the institutions from performing their traditional role of financing the most viable projects that will hasten industrialisation.

K. K. Sharma



Hindustan Aeronautics Ajeet fighter.

Regenerating West Bengal

ONE OF the first things that the Marxist Left Front Ministry in West Bengal did on coming to power was to establish a close rapport with local chambers of commerce. At the same time it exhorted the working class not to strike needlessley but only as a last resort after exploring all other avenues. This rather un-Marxist approach seemed strange to most political observers. Chief Minister Jyoti Basu justified it, however, on the grounds that the Left Front was, after all, *ruling* in but one of the States of the Indian union which has a mixed economy, and the constitutional limitations of a State Government being what they are, the West Bengal Ministry cannot choose a different course.

"This reality of a mixed economy has to be accepted," Mr. Basu explains, and the Left Front is trying to get "whatever good" it can out of it. However, those who know today's economic circumstances in West Bengal think that the Ministry's overt friendliness towards business (it is rather big business in West Bengal since out of 20 large or "monopoly" houses 17 have their presence here) is not a matter of tactics, but of plain necessity—or in a way Hobson's choice. The Front is committed to the solution of the unemployment problem, especially among the educated who have solidly voted for it, and this will not be possible without a full blooded industrial revival in the state.

Recession

A variety of factors have contributed to West Bengal's industrial stagnation and decline, but the two foremost are a prolonged demand recession for the products of the engineering groups—heavy engineering units particularly—which form the backbone of the industrial structure, and secondly, a marked fall in industrial investment which over the years has caused the State since the 1960s to fall behind Maharashtra in the industrial race.

The industrial boom in the 1960s was not so much the result of public investment, although that played an important part, as of massive private investment, especially by the much-maligned multinationals in the various sectors of the State's industrial economy. The Left Front Ministry is perceptive enough to understand that industrial regeneration on any worthwhile scale will not be possible without the active and wholehearted co-operation of the business houses already operating here.

On its own the State Government has taken out a letter of intent for a petrochemical complex in Haldia (a preliminary licence which will be converted into the final licence after a definite project report is submitted indicating the technology to be adopted, sources of technical collaboration and the pattern of financing, etc.) to introduce a much-needed diversification into the State's stagnant industrial structure. A special corporation to promote the electronics industries and another to set up pharmaceutical units have been created to promote joint ventures with private partners as a matter of policy. Even in the proposed petrochemical venture, shares will be issued to the public to the extent of at least 26 per cent.

An industrial advisory council has been set up, with local industrialists given appropriate representation alongside representatives of the Govrnment and workers, where all matters relating to new investment and the problems of local industries are freely and meaningfully discussed.

But the real problem is that the State Government has really very limited power in the matter of industrial development—that too has been rubbed in by unkind critics—and even a "sick" industrial unit cannot be taken over without New Delhi's express approval. Yet the industrial houses appreciate the businesslike and straightforward way in which the Left Front Government, especially its Chief Minister, a barrister turned Communist trade unionist, has been trying tackle the State's major economic problems in the most realistic way possible.

Its limited constitutional powers apart, what has been proving particularly frustrating is the chronic power shortage, which prevents industries from utilising their productive capacity to the extent they would like. The jute and engineering industries in particular have been hard hit, suffering serious production losses. In such a situation talk of new industrial capacity has become a little unrealistic at the moment.

The Left Front Ministry has arranged to import power from neighbouring Orissa to make up the gap, but realising that the real solution lies in an efficient utilisation of the State's own generating capacity has sought the advice and suggestions from industrialists on how to put matters right in the power plants, some of which have been seriously affected by a peculiar political rivalry among the labour unions, a dearth of spares and very unsatisfactory maintenance standards.

When an intrepid business executive suggested to the Chief Minister that he should hand over the power plants to private enterprise so that the stations could work efficiently, Mr. Basu good humouredly pocketed the affront and asked the industrialists to help revive some of the ailing private units first. Incidentally, West Bengal has the largest number of ailing units of any State in the country, not all of them worth reviving. But the Ministry expects business houses here to give it a helping hand in bringing back the units into a healthy condition.

Another example of the Chief Minister's good faith in seeking the help of the private sector—and he in turn helping it to utilise the State's productive energy better—is the backing he has given to the Calcutta Electric Supply Corporation's 240MW thermal power station to be set up near Calcutta. The corporation is not only a private sector enterprise but an Indo-British company which is foreign-controlled. Its existing plants are very old and have been considerably derated for their age, yet the corporation has a good record as a producer of electricity.

Its lease or licence, which was to expire in 1980, was extended by the former regime up to the year 2000. Mr. Basu's justification for extending support to the corporation for its new venture is that if the company is to work as a private undertaking up to the end of this century, it should be allowed to work well. Calcutta and its surrounding industrial belt are desperately short of power—and a 240MW plant would be a great blessing.

Licence

Therefore, when the central Government delayed unnecessarily in issuing a licence West Bengal took up the matter at the highest level and eventually the bureaucrats of New Delhi cleared the project. They knew well enough that the 240MW thermal project was quite soundly conceived and urgently needed and that finance for it was fully assured including a contribution from the World Bank. Yet the sheer habit of bureaucratic inertia and delay had held up the project for nine long months.

It is this kind of support to industries seeking central Government licences for expansion, diversification or altogether new schemes that business houses would increasingly need. For their part the chambers of commerce have responded to Mr. Basu's gesture of co-operation by submitting schemes involving an investment in the State of Rs 3bn (£200m) on new projects as well as on substantial expansion and diversification. These projects are being scrutinised by the departments concerned to be forwarded to the Central Government for final approval.

Dr. Asoke Mitra, Finance Minister, says that so long as investment proposals conform to the main goals of the Left Front Ministry's industrial policy, there would be no problem about the Government throwing its full weight behind them.

The main goals of the Left Front's industrial policy are: (a) reversal of the trend towards industrial stagnation; (b) arresting the growth of unemployment and providing for increased employment in the industrial as well as agricultural sectors; (c) encouraging the growth of small and cottage industries; (d) lessening the stranglehold of the monopoly houses and multinational groups on the economy of the State; (e) gradual expansion of the public sector; and (g) increasing the control of the actual producers—i.e., the workers—over the industrial sector.

Dr. Mitra explains that these are long-term goals, but that in the immediate future the Government would welcome investment from any quarter, MRTP houses and multinationals included, as long as these conformed to the national laws governing such investments. The Left Front Government's only condition is that the MRTP houses and multinationals should reinvest their profits in the State, not transfer them elsewhere.

Taking a practical view of things, MRTP houses and the multinationals in the State do not disagree on this point. For them the remittance of profit of a new project in West Bengal is not very important at this stage. Strengthening the operational base of their business in the country as a whole is what these companies are after.

For example, Metal Box is going ahead with a Rs 190m project with French technical collaboration, with a capacity for 6.75m ball bearings and tapered roller bearings. Being purely an import substitution effort, no marketing problem is forecast. The company would be glad to reinvest its profit from this project in a suitable way given the opportunity.

Plant

Davy Ashmore India is putting up a Rs 34.5m plant in the same vicinity to make a variety of engineering products including metal pressing equipment, extrusion presses, forging presses, rolling mills for blast furnaces, auxiliary plant, etc. It too would be glad to have opportunities of making further investment out of the profits of this particular project.

The main hurdle is posed by the restrictive attitude of New Delhi. However, the businessmen in West Bengal, including those representing the MRTP houses and multinationals, are happy that a Marxist-led Ministry is taking a benign interest in their affairs, in an obviously constructive spirit to bring about an industrial revival in the State. They are happy too that labour has not been encouraged to become difficult and that law and order in the industrial belt is on the whole satisfactory—more so than it is in other industrially advanced States like Maharashtra.

By and large, industrialists in West Bengal have found that all the grave forebodings about the revolutionary attitudes of a Marxist-dominated Ministry towards private enterprise have not been fulfilled.

In fact, it is a measure of the cordial relations between industry and the Government here that when there was an appreciable improvement in the power situation for a few days the president of a leading chamber of commerce quite hastily and prematurely sent a letter of profuse congratulation to the Chief Minister. The improvement of course did not last long, but it was clearly some indication that big business is not hostile to the Marxists.

P. C. Mahanti

The Ganges at Benares

Foreign companies can still operate successfully

THE CONFRONTATION which *took* place last year between the Government and two large American companies, IBM and Coca-Cola, may have given the impression to outsiders that the climate for foreign investment in India had deteriorated and that foreign companies were no longer welcome. This would be incorrect. Although India has never relied on foreign invest*ment to the extent of some* other developing countries, such as Brazil, and the activities of foreign companies are restricted in several ways, it has been and still is possible for them to operate successfully and profitably in India.

The best performers have generally been the companies which have organised themselves *in a way which contri*butes to national objectives; they have done what the Government wanted them to do before being compelled to do so by legislation. While they have been prevented from expanding into certain sectors, it has usually been the execution of policy rather than the policy itself which they have found frustrating: they would be happier if the frustrations were removed, but they have learned to live with them.

It is true that, as in most developing countries, multinational-baiting is a favourite sport for politicians. Foreign-controlled companies are associated in people's minds with what Mr. George Fernandes, Minister for Industry, calls the "five-star hotel culture." Although they account for less than *10 per cent of the coun*try's industrial investment, the bigger companies are highly visible to the general public. Among the 30 largest private companies are subsidiaries or associates of Unilever, BAT *Industries, Brooke Bond*, Dunlop, British Leyland, Alcan, Union Carbide, GKN and Siemens. But there are only a few sectors which are dominated by foreign-controlled companies: one example is drugs which has *become a particularly sensitive* area.

Rules

Even before the enactment of the Foreign Exchange Regula*tion Act (FERA) in 1973 many* foreign companies had taken steps to Indianise their management and to reduce their shareholdings. Hindustan Lever, for instance, the Unilever subsidiary, had sold 10 per cent of its shares to the Indian public in 1956 and another 5 per cent in 1965; last year the shareholding was reduced to 63 per cent. The present chairman and his two predecessors have been Indian nationals.

The FERA rules, as amended in 1976, define three categories for *foreign-controlled* companies. The first covers those in which not less than 75 per cent of annual turnover consists of "core" sector activities (a specified number of industries, sometimes referred to as Appendix I industries, including fertilisers, petrochemicals and capital goods) or of activities involving sophisticated technology or of exports. In this category the foreign company may retain up to 74 per cent of the equity.

The second covers companies which do not less than 60 per cent of their business in core sectors or in activities involving sophisticated technology *and* export not less than 10 per cent of their production. These *companies may retain* up to 51 per cent foreign equity.

Concession

The third category covers all the companies which do not satisfy the criteria set out above; they must reduce the foreign share of the equity to not more than 40 per cent. There *is a further provision* with regards to exports. A company which exports 40 per cent of its production may qualify for a 51 per cent foreign holding: a larger proportion of exports may qualify for a higher equity participation. A foreign company may be allowed to retain full ownership of its Indian subsidiary if its production is wholly geared to exports. A further concession announced recently is that foreign companies which re-invest in India profits that would normally be remitted may be allowed to retain 51 per cent foreign equity.

Not surprisingly, the application of the FERA rules has caused problems in the border-line cases. Where a company is clearly in the 50 to 74 per cent categories, no major change in its operations is called for. ICI, for instance, has three main subsidiaries in India—Indian Explosives, making explosives and fertilisers, which is 50.4 per cent owned (the Indian Government is a minority partner) Chemicals and Fibres of India making polyester fibres (55 per cent owned), and Alkali and Chemical Corporation of India (51 per cent owned), which manufactures a wide range of chemicals and plastics and is now building new plants for "Gramoxone" and pharmaceuticals.

With a total employment of 11,000, ICI is one of the largest foreign investors in India and is continuing to expand and *diversify*.

Similarly other companies whose activities are clearly in the "core" sectors like Siemens in electrical equipment and *British Leyland in commercial* vehicles, are able to retain majority control.

At the other end of the scale there has been no question that a company like Metal Box of India, making cans and other forms of packaging, would have to dilute to 40 per cent. This company has obtained approval from the authorities for the issue of convertible bonds which by 1981 will reduce the shareholding of the parent company *to 40 per cent or less. Similarly,* ITC Ltd (formerly Imperial Tobacco, in which BAT Industries is the dominant shareholder) has diluted to 40 per cent and Britannia Biscuits, 53 per cent owned by Associated Biscuit in the UK, has announced plans to do so.

The 40 per cent-owned companies are treated on a par with Indian companies, but some of them are "large houses" as defined by the Monopolies and Restrictive Trade Practice Act and thus their abilitiy to expand and diversify is restricted. If a company already has a dominant position in a particular market, as ITC has in cigarettes (about 47 per cent of the market), it is unlikely to be allowed to expand in that field. If it wants to grow, it will have to diversify and in its choice of new fields it will have to keep clear *of this company's turnover is* public sector or for small-scale industry.

Preference

In practice this means that it is steered into areas where large-scale investment and the kind of marketing and manage*ment skills associated with a* large company are required. The Government's preference is for investments which generate employment, earn foreign exchange or help to develop backward parts of the country. Thus ITC has diversified into hotels and into marine products. Metal Box is building a plant to manufacture bearings, a product which is in short supply in India; by the early 1980s some 25-30 per cent of this company's turnover is likely to be in non-packaging fields.

Difficulties have arisen over defining what constitutes sophisticated technology. For instance, Hindustan Lever claims that its method of making soap, using minor oils which would otherwise have no market and producing valuable by-products such as glycerine, is sophisticated technology. The claim has been investigated by experts appointed by the Department of Science and Technology and apparently accepted but the problem is not yet resolved. *In the* meantime Lever has been diversifying into new areas, with a large investment in phosphoric acid and other chemicals due on stream shortly; by the mid-1980s some 30-40 per cent of the company's *business* may be outside Unilever's traditional lines.

Similarly, there can be problems in calculating the precise percentage of a company's business which is in the priority sectors. *Union Carbide India has* a dominant position in batteries, not a priority sector, but it is also in petrochemicals, is building a pesticide plant and, for export purposes, has invested in marine products. The company *is confident that it will reach* the 60 per cent ratio within a period acceptable to the authorities and thus retain its present 50.9 per cent shareholding.

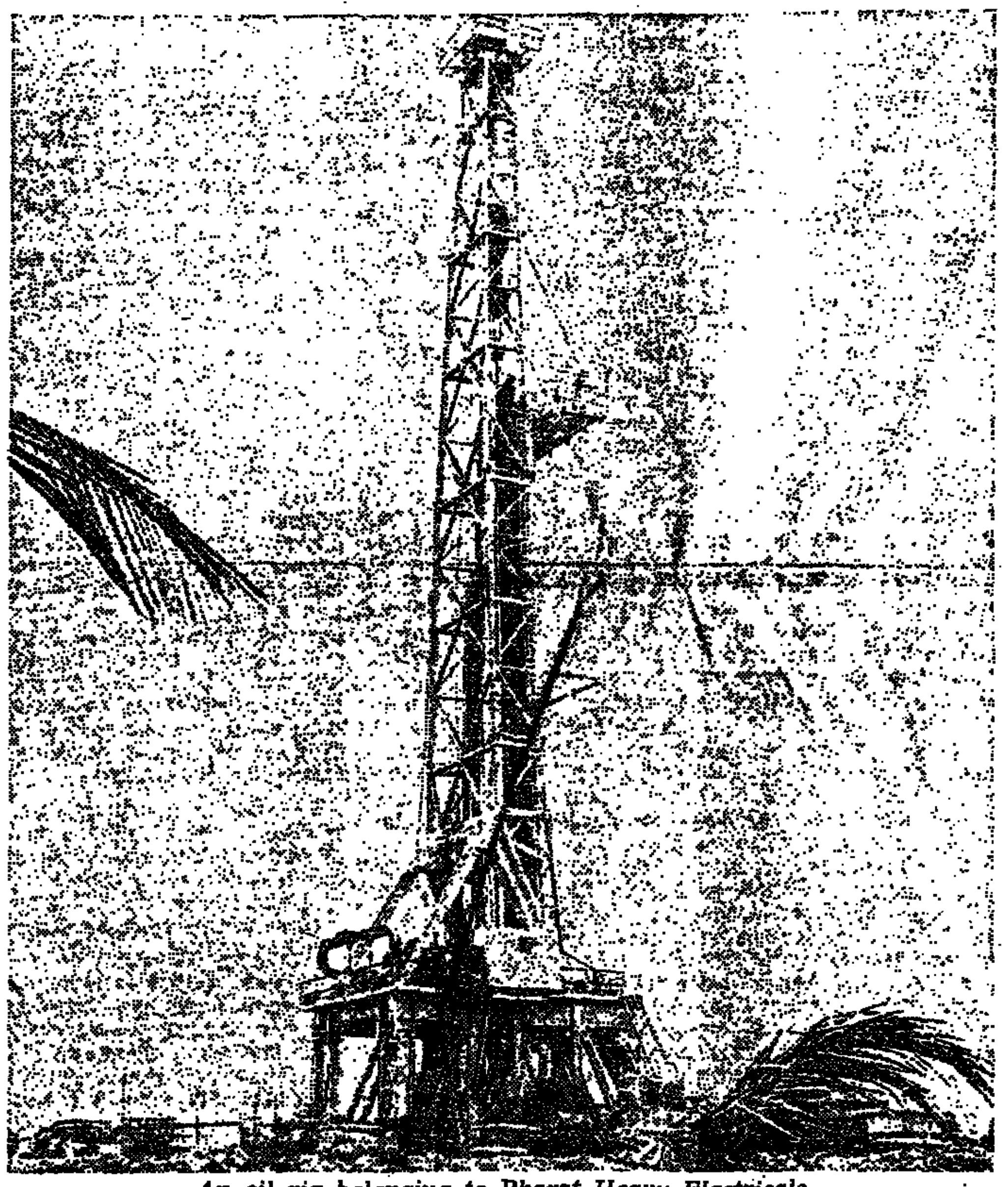
Negotiations with the authori*ties can be time consuming and* some observers believe that the border line companies would be better off to accept a dilution to 40 per cent. Several British-controlled companies have found no difficulty in adjusting *to a lower equity holding.* Since the rest of the shares are widely spread, the change from 51 per cent to 40 per cent makes no difference to management control and relations with the parent company need not be *affected in a drastic way*. But to some American and Continental companies the loss of majority control is a considerable psychological hurdle. An Indian manager in one of these companies worries that after *dilution to 40 per cent* the Indian company will no longer have the same place in the parent's worldwide network and access to new technology will be more difficult. "It will no longer be a matter of walking *in and picking up whatever you* like." He also sees no great attraction in diversifying into industries like deep-sea fishing where the company has no experience.

There is criticism among *foreign companies of the* unimaginative way in which FERA has been applied. It is arguable that even within the FERA rules India could be making better use of foreign investment. Philips, for example, *which is diluting to 40 per cent*, finds itself squeezed between the public sector (which has a dominant role in telecommunications and some types of electronic equipment) and the small-scale sector, which has preferential rights to certain consumer products. Several electronics companies feel they could be making a bigger con-

CONTINUED ON NEXT PAGE

FOREIGN COLLABORATIONS SANCTIONED IN 1977

	Total	Financial and technical	Technical only
UK	59	9	50
Germany	55	5	50
U.S.	54	6	48
Switzerland	23	4	19
Japan	20	—	20
France	14	1	13
Others	42	2	40
Total	267	27	240



An oil rig belonging to Bharat Heavy Electricals.

BHARAT HEAVY ELECTRICALS

IN THE PAST technical agree*ments were sometimes based on* the desire of the foreign collaborator to offload outdated technology on the Indian partner, while keeping advanced know-how to himself. As Indian industry has matured, the need for foreign technology has changed and so, too, have the attitudes of foreign companies. The State-owned Bharat Heavy *Electricals, for instance, which* started in 1955 with a collaboration with Associated Electrical Industries of the UK, has in recent years invested heavily in its own research and development. It reckons to be well up with the leaders in several fields, such as solar energy and new methods of coal combustion, but has no qualms about *buying in technology* to supplement its own efforts. "If someone else has already done the work we are interested in," says Mr. H. N. Sharan, engineering director, "we'll buy it."

In a deal which has aroused some political criticism BHEL has signed an agreement with KWU, the Siemens subsidiary, for know-how in turbine gene*rators of 200 MW to 1,000 MW.* BHEL is now making 210 MW sets based on Russian technology, but plans have been approved by the Government to build four super-thermal stations which will incorporate *500 MW sets. The first will be* built by Tata Power in Trombay and the first 500 MW set will be largely imported from Germany, though with some items manufactured by BHEL and full engineering involvement by the Indian company.

"There is a clear understanding that it will be an open door policy between KWU and ourselves," says Mr. Sharan. "Our engineers are involved in developing the designs. Our *engineers can go to their* laboratories and they are free to come to work with us here.

It's a 15-year agreement and we're *not just talking about* products—we are interested in power station engineering." KWU will take part of the royalty in the form of equipment manufactured by BHEL in India. The rate of royalty is a sliding scale starting with 4 per cent for the first five sets and going down to 2 per cent after the tenth set. KWU was *selected out of a list of 11* manufacturers; the short list included General Electric of the U.S., Brown Boveri, GEC and MAN-Alsthom.

BHEL, which employs over 50,000 people, is determined to become one of the world's leaders in power station engineering: it has developed a sophisticated organisation for research and product development. It has the volume to support a substantial research and development programme; it will soon be in a position to supply equipment with a generating capacity of 4,000 MW each year. But it recognises that gaps exist between its technology and that of the main international suppliers and that these gaps cannot be filled quickly enough by in-house development.

BHEL has sought agreements in specific areas with companies which have a strong R and D base and experience in transferring technology successfully; apart from KWU, there are agreements on boilers with Combustion Engineering of the U.S., on transformers with Alsthom of France and several others. The company is impressed by the example of the Japanese, who have become competitive suppliers in world markets, of know-how as well as equipment, while continuing to absorb technological input from foreign collaborators.

G.O.

Bombay: the business centre

WHILE NEW DELHI is the political capital, Bombay is the commercial capital of India. Indians visiting the city for the first time are struck by the fast, if mechanical, pace at which life moves. Unlike many Indian cities, it lacks a personality of its own except that it is very commercialised. It is cosmopolitan, and the largest single linguistic group, Marathi-speaking, represent only 40 per cent of the 7m population of Bombay. For a foreigner, it is little different from any Western city.

Bombay contributes one-third of the total direct taxes (Rs 24.15bn in 1977-78), paid to the central exchequer. It has as many income tax officials as eight of the country's 17 states have. These taxes are collected from individuals, commercial establishments and industries, located within the city and those whose registered offices are in Bombay. For instance, the manufacturing plants of Tata Iron and Steel Company and Associated Cement Companies are outside Maharashtra, whose capital is Bombay, but their taxes are credited to Bombay because of the location of the registered offices. Bombay is the seat of many other business houses such as Mafatlals and Birlas.

About half of the Rs 62.33bn customs and excise duties, a type of turnover tax imposed on manufactured products by the central Government, comes from the city alone. Its contributions to import duties are the highest because the local harbour caters for the entire western, central and northern regions of the country.

Bombay has been the traditional centre for international trade. The Bombay Cotton Exchange, the biggest after New York. Its bullion market is the pace-setter for the country since the bulk of gold used to be smuggled in from the Middle East. Over the past two decades, Bombay forged ahead of Calcutta, which was the early base for British businessmen with interests in the jute and tea industries. Cotton textiles was the main agro-based industry in western India and the humid Bombay climate attracted scores of textile mills. What the textile entrepreneurs have done is to diversify to chemical and other modern industries giving a filip to the industrialisation of Bombay. The Naxalite (a party owing allegiance to Peking) trouble in West Bengal eight years ago resulted in a flight of capital, a substantial portion of which came to Bombay.

Bombay has thus been the magnet for industry, big and small. A comparable infrastructure and a ready market for the products produced are not available elsewhere. Above all, there is an industrial culture. In areas where industrialisation is now taking place, absenteeism, lack of punctuality and attitude to work are worrying factory managers. The Bombay industrial area has gradually expanded and now extends as far as 60 miles. Satellite industrial towns have grown up in Pune, Nasik and even Aurangabad, where the famous Ajanta-Ellora caves are located. The contribution of Bombay to the country's GNP is more than 18 per cent, out of 23 per cent by Maharashtra.

The growth of industry in the city has been haphazard bringing in its train problems of urbanisation. Civic amenities, like water supply and sanitation, are just not able to cope with the expanding population. Town planners have recently devised measures to take the pressure off Bombay by designing a new city called New Bombay, comprising 16 divisions or "NODES", each separated from the other by a green belt and each self-sufficient with a population of 100,000. The township of Vashi, the first phase of New Bombay development, has already been built to accommodate 15,000 families of workers employed in a satellite industrial centre, known as the Thane-Belapur belt, where more than Rs 3bn were invested during the 10 years to 1975 in 90 units engaged in petrochemicals and their downstream products, drugs and pharmaceuticals, rolled steel items, aluminium foils, electrical equipment, canned foods. These units belong to Mafatlals, Wadias and foreign companies like ICI, Pfizer and Union Carbide.

The external trade with the West has enabled Bombay to develop into a financial centre as well. Foreign banks, known in those days as exchange banks, established offices in Bombay to take advantage of the expanding trade. Fired by "Swadeshi" spirit, some progressive businessmen decided to set up their own institutional framework to mobilise public savings. That flush of enthusiasm brought into existence many commercial banks (Central Bank of India, for instance). The location of the Reserve Bank of India in Bombay gave a boost to banking. The city has emerged as the premier banking centre with headquarters of six major banks—State Bank of India, Central Bank, Union Bank of India, Bank of India, Bank of Baroda and Dena Bank—accounting for 60 per cent of the banking system, all located in Bombay.

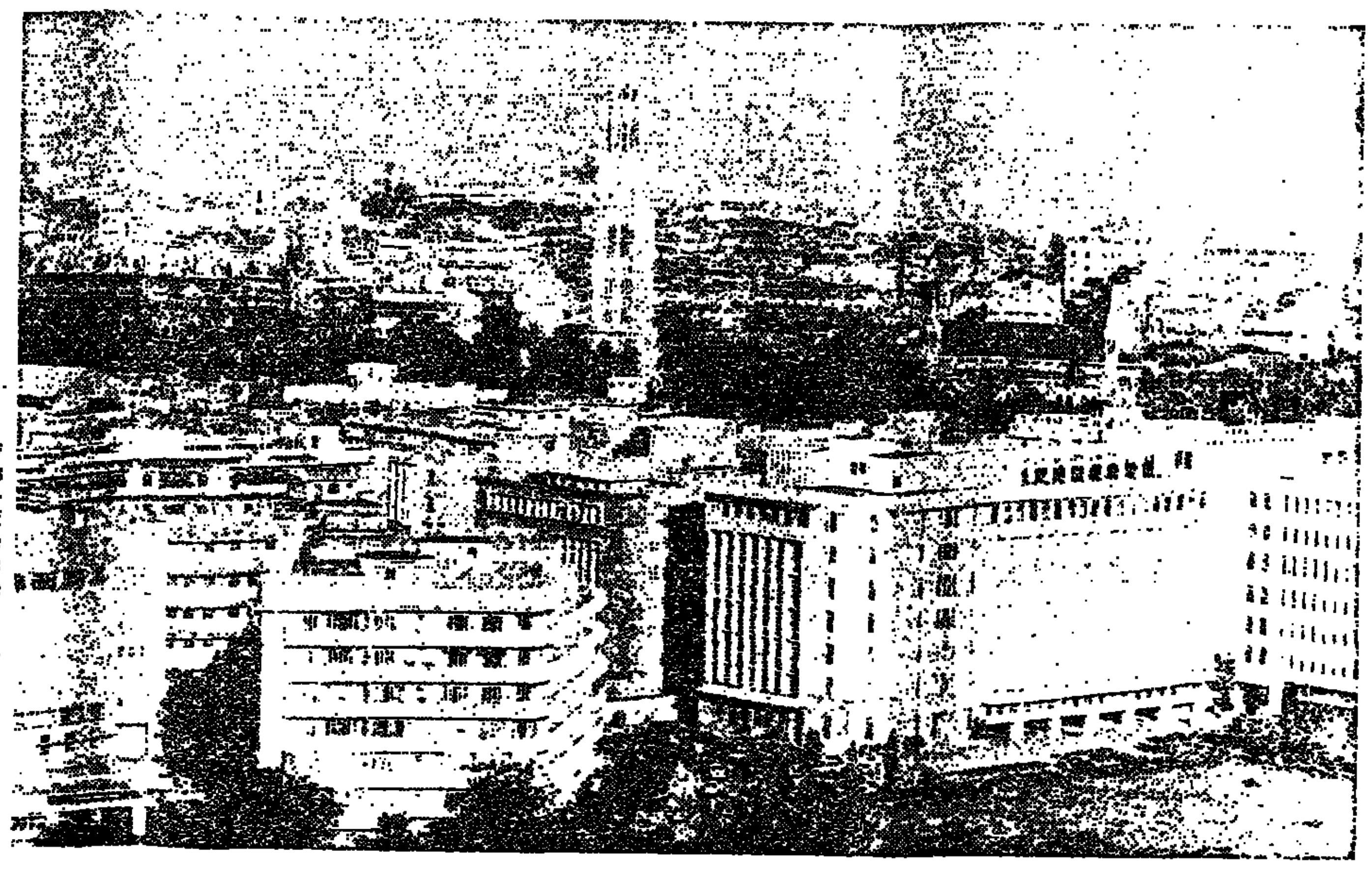
Base

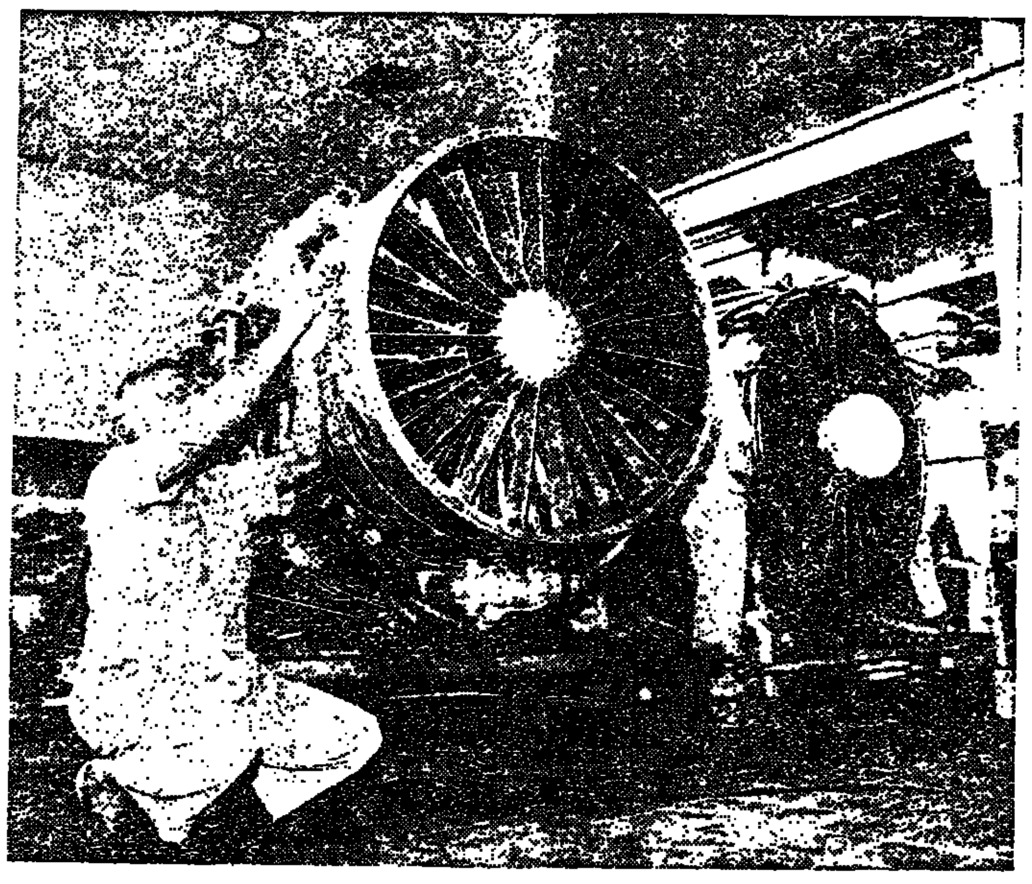
Three financial institutions—Industrial Development Bank of India, Industrial Credit and Investment Corporation of India, and the Agricultural Refinance and Development Corporation—have their base in Bombay. Also, there are the public sector general and credit insurance companies, the Deposit Insurance Corporation and Agricultural Finance Corporation, besides a host of state-level financial institutions. The proximity of financial institutions has enabled industry and trade to secure bank credit at the expense of other states. The credit-deposit ratio in Bombay is as high as 110 per cent.

The impact of industry on science, higher education, medicine and art has seen the establishment of a chain of institutions. Tatas have helped set up Tata Institute of Fundamental Research, an institute of social sciences and advanced cancer research centre. Birlas have established a well-equipped hospital and medical research unit. The airline set up by Tatas formed the nucleus for India's national carrier, Air India.

The Middle East boom has thrown up fresh opportunities for expanding exports. The business community of Bombay has taken the initiative to establish, in co-operation with the Maharashtra Government, a Rs 400m world trade centre, which will give overseas visitors an idea of the country's technological achievements and the products India can offer. Also, it will bring under one roof all the agencies, sources of information and business know-how connected with international trade and enable buyers to undertake financial transactions.

R. C. Murthy





The centre of Bombay and (below) an engine overhaul being carried out at Air India's engineering base at Santa Cruz, Bombay.

Foreign

CONTINUED FROM PREVIOUS PAGE

tribution and they are frustrated when they see their parent devoting more attention to countries like Brazil.

The supply of technology without financial involvement is another way of participating in the Indian economy: the partnership which Siemens is developing with Bharat Heavy Electricals in turbine generators is one example. While its attitude to the terms of such arrangements is regarded as unduly restrictive, the Government welcomes such collaboration in particular areas. But it will not accept dependence on foreign control or foreign technology. That is why the future of the drug industry has become such an issue.

The Government wants to reduce the dominance of foreign-controlled companies in favour of the public sector companies, Hindustan Antibiotics and Indian Drugs and Pharmaceuticals, and of Indian-controlled companies. The price of drugs and the role of foreign-owned pharmaceutical companies is a sensitive issue in most countries and it is not surprising that Indian policy on the matter has become, in the words of one critic, "an unhappy compromise between doctrinaire economics and the pulls of different sectoral interests." But even if the role of foreign companies in this sector is reduced, it should not be taken as an indication that the Government is not interested in what foreign companies have to offer.

G.O.

Despite heavy investments by the public sector in the early years after independence, the level of efficiency in some of India's basic industries is still patchy. With the recent upsurge in demand bottlenecks in the supply of several key materials have appeared.

Steel production

THE DISAPPOINTINGLY mixed performance of India's steel industry since the war has been one of the factors encouraging the Janata Government's more sceptical attitude towards large-scale, highly capital-intensive projects embarcing sophisticated technology. Despite the enormous resources devoted to it by successive governments in the drive for self-reliance—often at the expense of other development projects—the industry has failed to meet production targets, capacity utilisation has been low, the scheme to develop a network of electric arc furnaces (the so-called "ministeel" plants) has barely worked, the country is still dependent on imports for certain specialised steels and overall consumption is not much higher than it was five years ago.

For all that, it is partly thanks to the slow growth of the past 20 years that India's steel industry today is well-off by comparison with its counterparts abroad. In the words of Mr. J. R. D. Tata, the chairman of the Tate Iron and Steel Company (TISCO), which runs the country's only private sector integrated steel plant, "Had the unrealistic expansion plans then laid materialised, our industry would have been in serious trouble today." In fact, with the higher production of 1976-77 maintained last year and a much higher target this year, some people are actually asking whether the industry is at last out of the woods.

Power

To judge simply by its performance over the past three months, the answer would probably be no. Overall production of ingot steel from the six integrated steel plants was planned to top 10.05m tonnes in 1978-79, a substantial rise on the 1977-78 output of 8.4m tonnes, but already production in the first three months is well down on the corresponding quarter of last year.

This is partly because of power shortages which have hit the Bokaro and Durgapur steel plants as a result of restrictions in the Damodar Valley Corporation output. Both plants, along with Bhilai, have also suffered from bad industrial relations, mainly inter-union rivalry. On top of this Bhilai and Rourkela have needed capital repairs, though these are now complete.

Contrary to widespread opinion coal supply problems have not affected production, though the record coal stocks two years ago had been halved by the beginning of June this year to about seven days' consumption, and coke stocks were put at 200,000 tonnes. Efforts to guarantee coal supplies for the steelworks are already being made.

Steel industry representatives do complain about the quality of the coal, however, which has a high ash content growing still higher as lower quality seams are mined. The Steel Authority of India (SAIL), which runs the five public sector integrated plants, is awaiting tenders for the supply of 1m tonnes of coking coal from abroad, which would be experimentally blended with the local product for use at Bhilai and Rourkela.

Thus no one is sure that this year's high targets will be achieved. On the other hand capacity utilisation in the industry is now running unusually high. At TISCO the figure tops the theoretical 100 per cent, while Bhilai, which was built with Soviet collaboration, is operating at 98 per cent and Rourkela, built with West German collaboration, at 94 per cent. Durgapur, built with help from 13 British steel companies, continues to languish at closer to 70 per cent, and IISCO below 50 per cent.

These plants produce 80 per cent of the country's ingot steel and closer to 90 per cent of its finished steel. Their improved capacity utilisation—the average level in the integrated plants was only 65 per cent in 1973-74—is partly due to better supplies of iron ore, coal and power than they received then. But it also reflects an apparent turn-round in domestic demand from the low point of early 1977.

Already the large steel stocks built up in the recent recession are falling with the improved off-take. Stocks with the producers had come down below 1.2m tonnes at the end of 1977 after standing at 1.6m tonnes 12 months earlier. Exports, marginally higher at just over 1m tonnes after a big improvement in 1975-76, are having to take second place to domestic requirements, simultaneously giving an unfortunate "stop-go" image to the outside world.

The underlying reason for the encouraging signs appears to be an upsurge in building and construction activity. But India's industrial economy is delicately balanced, and just as the supply of steel can be ruptured directly by power shortages or erratic raw material supplies, so can it be affected indirectly if cement production falters and hits construction activity.

Equally, however, the re-orientation in economic policy in favour of the rural sector is widely expected to offer new opportunities, particularly if it achieves its aim of raising rural incomes. It is reckoned that 20 persons can find employment for every additional tonne of steel consumed in the economy.

The need for imports of steel nevertheless continues. Though the country has had a surplus of pig iron available for export over most of the past decade, and has been in a position to export finished steel for about half the period. Imports of plates, sheets and other products of high carbon and alloy steels have been necessary to provide the right mix and there will continue to be imbalances between categories of steel.

The new Bokaro plant, built with Soviet collaboration, is not yet producing commercially the cold-rolled steel with "deep drawing" qualities which the car industry needs, though some is apparently being exported and some is going to the country's defence industries. A new 32,000-tonne cold-rolling mill complex at Salem, producing sheets and strips of stainless, electrical and other special and mild steels, will not be completed until 1981.

The fortunes of the ministeel plants, which were intended to augment production in the early 1970s when a shortage suddenly seemed likely, remain blighted. This is partly because insufficient thought went into the crucial matters of power and scrap supplies, but it is also the result of a shortage of working capital. Some plants have closed down altogether, others have done so temporarily: few can hope to work profitably.

The Department of Steel and Mines in its latest annual report admits that the electric furnace industry has been "languishing for some time." Against an installed capacity of 2.88m tonnes, production in both 1974-75 and 1975-76 was just 0.6m tonnes, rising to 1.16m tonnes in 1976-77 and a little more last year. Even at this level of production, says the report, they were finding it difficult to sell their products, partly because of their high costs of production compared to the integrated steel plants.

Producers generally have suffered from a policy of keeping prices artificially low which has benefited consumers at their expense, reduced profit margins and hampered modernisation of plant and machinery while costs of raw materials, fuel, power and spares have risen. But the Government appears to feel that higher rises than the small ones they have recently allowed might retard its power generation plans, impair rural growth and have unacceptably large ripple effects throughout the economy.

Meanwhile, however, the subsidies continue as the losses run higher. Hindustan Steel, the SAIL division operating Bhilai, Durgapur and Rourkela, had run up a cumulative loss of Rs 858m by March of this year. TISCO, on the other hand, using plant and machinery installed in the 1920s, has shown a tidy profit (Rs 180.5m in 1976-77) for many years.

But even for TISCO there are frustrations. The company was invited by the Government to consider expansion, and commissioned a report from Nippon Steel which suggested in 1973 an increase in capacity from 2m to 5m tonnes at a cost of Rs 18bn. The money was not available. Five years later TISCO won approval for a phased modernisation allowing a marginal increase in output at a sixth of the cost, apparently on the grounds that expansion must be in the public sector. At the end of last month it was still awaiting the results of a feasibility study and a go-ahead from the Government.

Bokaro's expansion plan has meanwhile gone ahead, though somewhat behind schedule. Its third blast furnace was commissioned in February, marking completion of the first stage of 1.75m tonnes. Last month the junior Minister for Steel hinted at expansion to 5.5m tonnes, well beyond the 4.75m planned by 1982-83. Bhilai is presently being expanded from 2.5m to 4m tonnes.

Apparently in anticipation of a better future, India is also planning the construction of further plants. Apart from the Salem project, which was approved last year, detailed project reports have also been submitted on a 3m-tonne steel plant at Visakhapatnam and another plant at Vijayanagar.

The Visakhapatnam proposal, which closely involves the Soviet Union, envisages the establishment of a coast-based, export-oriented blast furnace complex with an annual capacity of 1m tonnes of saleable pig iron, to be built on a "production-compensation" basis or under a rouble credit arrangement. Russia would provide the resources India lacks and take the pig iron, while India would acquire an investment in the future for a time when demand has grown substantially.

However, opinion is moving away building further integrated plants in which pig iron is produced in blast furnaces in favour of the direct reduction of iron ore to sponge iron. India has the iron ore and coal to develop this process for itself, and both TISCO and the Ministry of Steel have projects going.

But with the other projects as well India is facing a danger—that it will acquire a greater capacity than it needs for the growth of its domestic requirements, a position which will be strong only if there is strong external demand. The past few years have shown how unreliable that position is, and how India has benefited by not being dependent on it.

Chris Sherwell

STEEL OUTPUT

('000 tonnes)

Plant	Capacity 1978 Ingot steel	Output 1976-77 Ingot steel	Output 1976-77 Saleable steel	Output 1976-77 Pig iron	Output 1977-78 Ingot steel	Output 1977-78 Saleable steel	Output 1977-78 Pig iron	Projected capacity 1982-83 Ingot steel
Bhilai	2,500	2,302	2,019	854	2,371	1,930	699	4,300
Durgapur	1,600	1,092	901	204	1,091	864	102	1,600
Rourkela	1,800	1,503	1,174	63	1,409	1,178	16	1,800
Bokaro	1,700	956	736	707	933	815	512	4,750
IISCO	1,000	667	541	—	651	506	—	1,000
TISCO	2,000	1,997	1,550	—	1,968	1,601	—	2,000
Total	10,600	8,428	6,922	1,329	8,424	6,894	1,329	15,450

Source: SAIL.

Loading iron ore for export at Goa.

Construction of the Srisailam dam at Andra Pradesh.

Middle East boost for construction

BUILDING CONSTRUCTION has become an organised activity—it is yet to be recognised as an industry by the Government—only for the past 15 years. The business emanated mainly from construction of high-rise buildings for offices and homes in major cities like Bombay, factory premises for new industrial units, irrigation dams and bridges under the five-year plans.

Until recently, the private sector had the field to itself. Over the past five years, central and state governments have started their own corporations to carry out public sector construction jobs. The entry of the public sector has increased the opportunities available. The fortunes of builders previously depended on the fluctuations in private sector construction activity, which depended on Government policies such as the urban land ceiling, funds for hire purchase schemes by financial institutions, availability of steel and cement and above all public expectations of real estate prices. At one stage, the Government imposed a ban on building construction to stop speculation as well as conserve cement for more essential purposes. That was lifted only in January 1976.

Many uncertainties that dogged the private construction industry, no longer exist. A shot in the arm for construction companies has come with the building boom in Middle East countries. Indian companies, both in the private and public sectors, are trying to grasp the opportunities. Realising the potential to export the human and material resources, the Government has decided to give help to the private sector. Also, two public sector corporations—Engineering Projects (India) Ltd. and National Building Construction Corporation—have entered the overseas market in a big way.

India has the advantage of proximity to the Middle East and also surplus labour which can be profitably deployed on there projects. Also, cement and steel were available, at least until recently, at competitive prices. Despite being at a disadvantage of relatively limited international reputation as against the world giants, Indian construction companies have won more than a dozen projects valued at more than Rs 10bn in the Middle East.

In all, 25 companies, including Gammon India, Shapoorji Pallonji, Hindustan Construction, Shah Construction, B. G. Shirke, are carrying out building construction contracts in Kuwait, Libya, Qatar and Abu Dhabi. Many more contracts would have been won but for the limited experience in handling such overseas contracts and the inadequate financial support. Also, the industry is not prepared to take risks. Sometimes, even if the companies want to take risks, their bankers do not approve. The situation is that if bankers issue a veto, no contract can be taken up by Indian construction companies.

All the overseas construction contracts are dealt with by an inter-institutional working group, which clears proposals and guides them till the end. The problems faced by the construction companies are many: tight exchange control right from the stage of opening an overseas account; difficulties in importing machinery from third countries, and cumbersome procedures for sending labour to overseas jobs. While the curbs are intended to restrict bogus labour recruiting agencies, they are hurting even the reputable construction companies undertaking work abroad. For instance, the companies have to get registration with the Government every time it gets a construction job overseas.

Observers see possibilities of further changes in the character of overseas operations. The building boom in the Middle East is expected to slow down in another five years. But the construction industry is launching other development projects, which gives scope for Indian industry to bid for turnkey contracts. Already, big business houses, whose growth is at present stifled, are showing interest. Birlas has set up textile mills in Indonesia and Thailand and are exploring possibilities of joint venture in Philippines. In Arab countries, it is exploring projects for manufacture of caustic soda, soda ash and other chemicals. The difference between the contracts undertaken in countries to the east of India and to the west of it is the type of Indian labour used. While it is skilled, semi-skilled and unskilled labour in Arab countries, the Indian labour deployed in Far East is engineers and technicians. But even the Arab countries will soon need Indian engineers and technicians rather than some unskilled labour in the next few years.

R. C. Murthy

Serious shortages of cement

IN THE last few months a large number of proposals for establishing new cement plants have been submitted to the central Government, some of them from companies with no previous experience of the industry. While this appears to conflict with the Government's intention to discourage over-diversification by large industrial groups, it reflects the critical situation which has emerged in the supply of cement and which threatens to become a serious brake on economic growth.

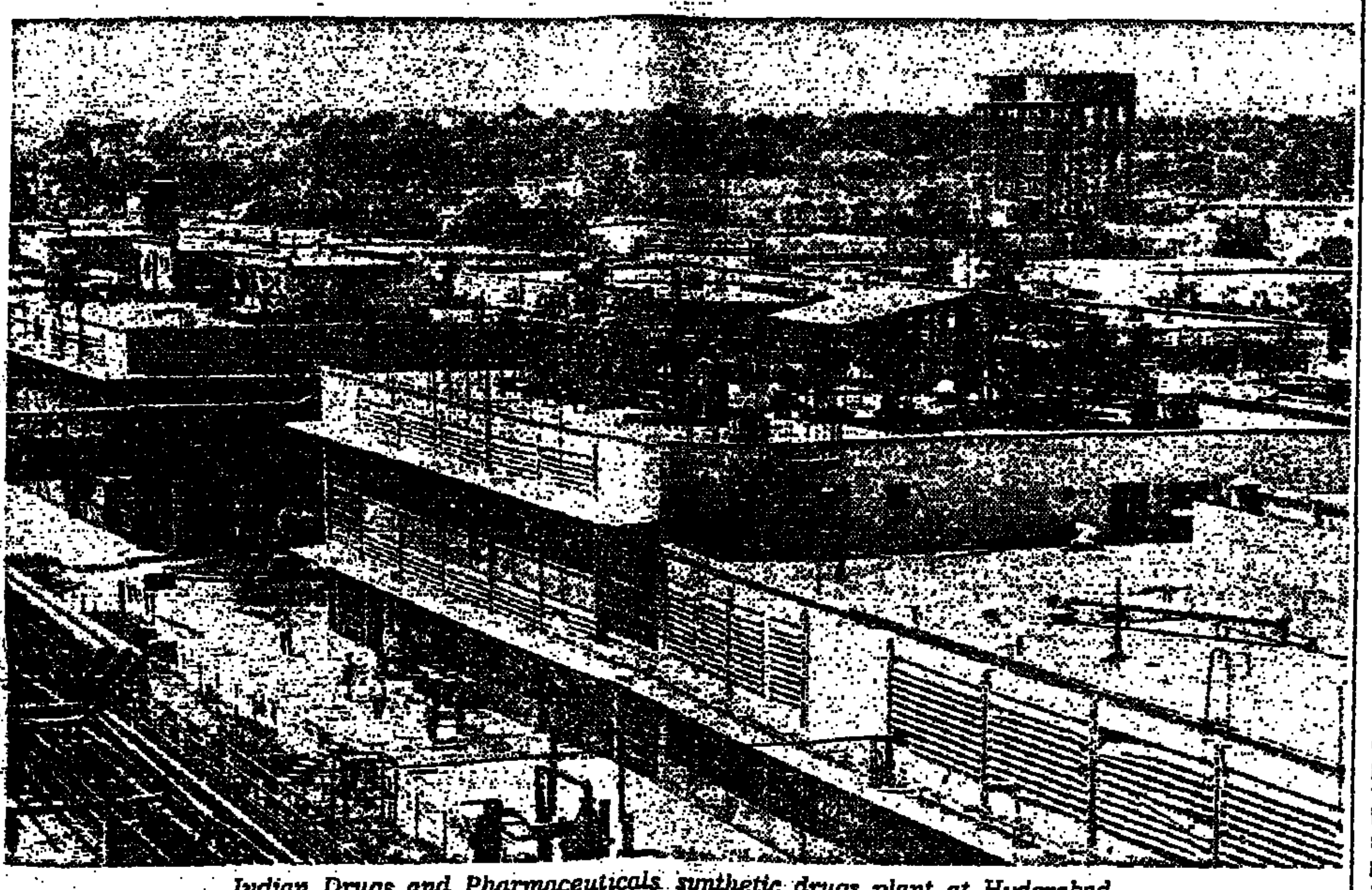
Although the speed with which demand has increased was unexpected, there has been little investment in new cement plants over the past five years. The Government now admits that prices for cement had been fixed too low. A new pricing formula has been established based on an after-tax return of 12 per cent on net worth.

In 1977-78 the industry produced 19.3m tonnes of cement, representing 89 per cent of capacity; this was about 2m tonnes short of demand. The Government has arranged for substantial imports, but prices have continued to rise and there have been accusations of "black-marketeering." Suggestions that the Government should take over the marketing and distribution of cement have been fiercely opposed by the manufacturers, who feel that control by bureaucrats would only make the situation worse. Problems in production have been aggravated by shortages of power and coal, which have caused one or two plants to be closed down temporarily.

The cement crisis appears to illustrate weaknesses in Government policy towards certain basic industries — paper is another example — where the anxiety to keep prices low has discouraged new investment and failed to produce an orderly growth of capacity. In the business community the hope is that the Government's attempt to correct these errors will not simply be a one-off exercise to deal with the present crisis, but will have a wider effect on industrial policy.

There is certainly no sign on the Government's part that it wishes to reserve the expansion of the cement industry for the public sector. Of the 30m tonnes expected to be produced in 1982-83, only about 8m tonnes will come from undertakings owned by the central or state Governments. The response of the private sector to the revised pricing formula shows that the Government is prepared to use the profit motive to achieve its objectives, but this has yet to be converted into a consistent policy for industry as a whole.

G.O.



Indian Drugs and Pharmaceuticals synthetic drugs plant at Hyderabad.

Major investment in fertilisers

SINCE AGRICULTURE is India's main industry, farm inputs must necessarily occupy a key place in the economy. Not surprisingly, therefore, the fertiliser industry accounts for the largest single investment in any sector in the current Five-Year Plan (1978-83) for new schemes. The new investment in setting up fertiliser units is estimated in the Plan at Rs11.31bn (roughly £500m) while existing schemes will get another Rs5.2bn. Fertiliser production has increased rapidly, although performance by the country's 55 factories has been uneven and capacity utilisation in most is a major problem.

Heavy imports have had to fill the gap between consumption, which is increasing rapidly every year, and production and these will continue. Hence the urgency to establish new capacity and make better use of established units. Demand projections by the Planning Commission are that 5.2m tonnes of nitrogenous and 1.6m tonnes of phosphatic fertiliser will be needed by 1982-83. Total installed capacity at present is 3.03m tonnes of nitrogen and just over 1m tonnes of phosphates and there will thus be a gap of 1.2m tonnes of nitrogen and 600,000 tonnes of phosphates.

Additional

To close this gap the Government plans to set up additional nitrogenous fertiliser plants in Maharashtra and Gujarat based on associated gas from Bombay High and Bassein offshore fields and another plant in Assam based on associated gas from oilfields there. Other proposals include a plant based on fuel oil in the private sector by Nagarjuna Fertilisers at Kakinada in Andhra and others for additional phosphatic capacity based on a recent working group's report.

Yet there will inevitably be a time gap between establishment of new capacity and actual production, especially as the plants based on Bombay High gas are facing environmental and political obstacles. Continued imports are unavoidable while action is taken to establish additional capacity to meet the higher demand.

Planners have got bogged down in the problems of identifying sites for the new plants and hence these are at the moment just tentative proposals. It is envisaged that, in addition to the projects under implementation, production will have to be initiated in a phased manner in nine new nitrogenous plants, six of which will be in the public sector and three in the private sector or taken up by co-operatives.

Capacity for phosphatic fertilisers will be based on a judicious combination of indigenous rock in Rajasthan and imported rock and phosphoric acid. But locational studies are just starting and these will be followed by feasibility studies—both time-consuming processes technically. If previous experience is any guide these problems will be aggravated by political tussles among competing States.

Quicker results can be obtained—and this is recognised by the planners—by improving efficiency of existing plants. A new pricing policy designed to reward the efficient and penalise those which do not operate well has just been introduced. It remains to be seen how far this proves effective since simultaneously a programme of modernisation and removal of constraints to improve the operational efficiency of obsolete plants will be needed. Some attention is being paid to this. Captive power plants for fertiliser plants have been permitted, for instance. But improvement of efficiency needs more attention than has been given so far to a key industry.

Despite the problems plaguing the fertiliser industry, growth has been impressive, particularly in the last decade. In 1956 nitrogenous capacity was just 85,000 tonnes; it is now 3m. Phosphates have increased from 85,000 tonnes to 915,000 in the same period and capacity utilisation in the industry has improved from 69.4 per cent in 1976-77 to 79 per cent in the following year. Further improvement in capacity utilisation is expected following introduction of a plant operation improvement programme with the help of the World Bank.

Feedstock

One problem is the wide variety of feedstock used by the plants. This includes naphtha, natural gas, coke oven gas, lignite and electricity. At one stage the Government decided that future plants should move away from naphtha and use fuel oil or coal. Accordingly six projects were planned on the basis of fuel oil and are under implementation, while two large coal-based units have been taken up at Ramagundam and Talcher. The trial runs of the coal units have proved satisfactory and it is possible that another such plant will be established at Korba.

With the discovery of oil and gas in the western continental shelf, the policy has been reviewed and it has been decided that the gas should get first priority. Coal comes next now that the two plants with coal gasification technology have proved to be feasible. Fuel oil is to be excluded while naphtha will be used only if quick implementation and low capital costs justify its use.

Much of the fertiliser industry is in the public sector. To improve efficiency the Government has made a controversial restructuring of the industry and the giant Fertiliser Corporation of India and National Fertilisers are to be reorganised into four companies based on regional and feedstock considerations.

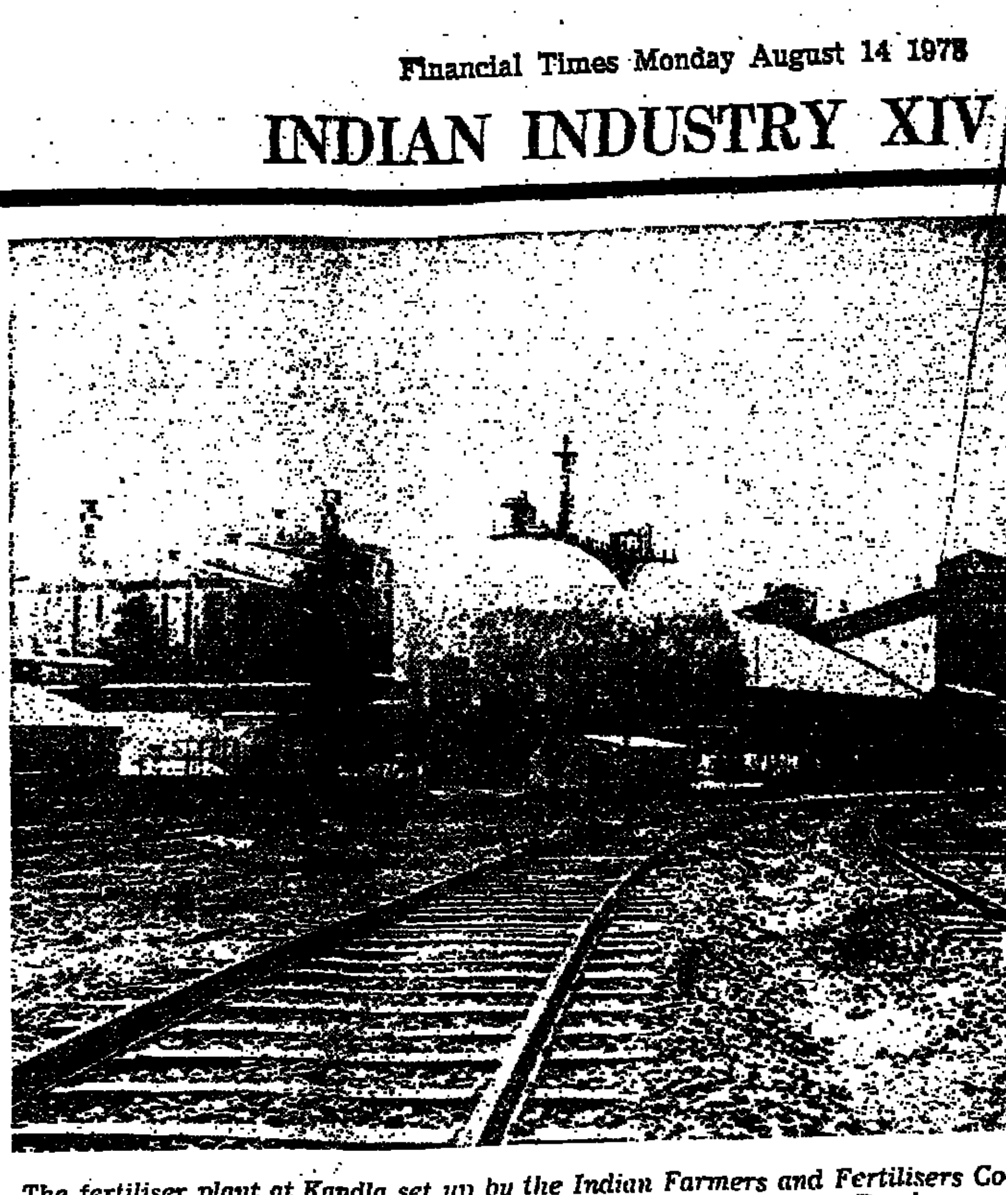
Other public sector companies include Fertilisers and Chemicals Travancore (FACT) and Madras Fertilisers, a joint venture with AMOCO of the U.S. and the National Iranian Oil Company. But by far the most successful is the Indian Farmers Fertilisers Co-operative (IFFCO), the only fertiliser producer in the co-operative sector and a uniquely successful experiment.

IFFCO's authorised capital is Rs 2bn and its paid-up capital Rs 589m, out of which the share of the co-operative is Rs 204m while the Government and the National Co-operative Development Corporation account for the rest. It runs highly efficient and profitable plants at Kalor and Kandla and expects to commission a new plant at Phulpur next year. So successful has its performance been that it has been given one of the two plants in Gujarat to be based on associated gas from Bombay High to implement, making it the largest single fertiliser producer in the country. Appropriately, the co-operative is owned largely by farmers whom it serves in a number of ways—an experiment that other Third World agricultural countries could usefully emulate.

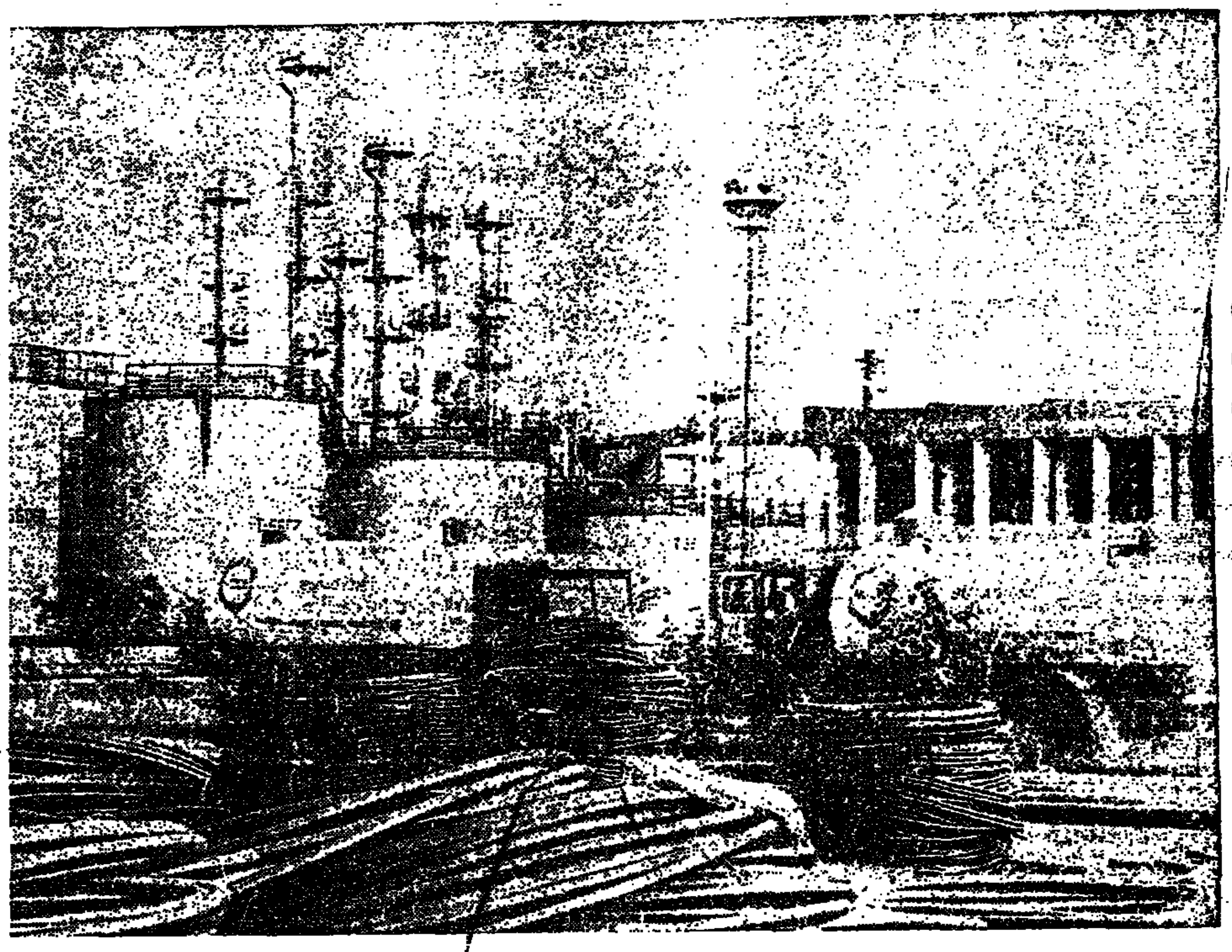
There are seven major operating units in the private sector—Shriram Chemicals in Kota, Rajasthan; Indian Explosives in Kanpur, Uttar Pradesh, which is controlled by ICI; Coromandal Fertilisers in Vishakapatnam, Andhra; Gujarat State Fertilisers in Baroda, Gujarat; Zuari Agro Chemicals in Goa; Southern Petrochemicals Industry Corporation in Tuticorin, Tamilnadu: and Mangalore Chemicals and Fertilisers in Karnataka. Together they have an installed capacity for manufacture of 1.2m tonnes of nitrogen annually and 247,000 tonnes of phosphates. Their performance is not entirely satisfactory and production from these units in 1977-78 was just 719,000 tonnes of nitrogen and 122,400 tonnes of phosphates, targets being fulfilled to the extent of 73 per cent in the case of the former and 76 per cent in the latter.

Public sector projects under implementation include Gujarat Narmada Valley Fertilisers in Baroda, a new company formed by Gujarat State Fertilisers in association with the State Government whose ammonia and urea plant is fuel-based and is being implemented with collaboration with Linde of West Germany and Progetti of Italy. The other is Nagarjuna Fertilisers and Chemicals which holds a letter of intent for setting up a fertiliser project based on fuel oil at Kakinada in Andhra, to be partly financed by British credit.

K.K.S.



The fertiliser plant at Kandla set up by the Indian Farmers and Fertilisers Co-Operative. Below is the petrochemical plant of NOCIL near Bombay.



Cautious approach to petrochemicals

AFTER A relatively slow start in petrochemicals—there is really just one major complex (at Baroda in Gujarat State) in operation—the Government now feels that the recent discovery of offshore crude and natural gas on the western coast provides new hopes in this field. Its approach has been cautious, however, largely because of the capital-intensive nature of petrochemical projects. Officials are now studying a cost-benefit analysis which has shown the advantages to the economy of the use of petrochemical products in place of conventional materials without adversely affecting established industries.

Many such uses have been identified — though not yet fully carried out—including plastic products in agriculture, irrigation, health and communications. Synthetic fibres are being more widely used as a substitute for cotton to supplement the country's clothing needs. Studies have demonstrated the potential employment opportunities in conversion of petrochemical products into consumer end-products in the small-scale sector. Following such studies, substantial new investments are planned although, taking into account the gestation period for new units in the petrochemicals industry, production will take time to materialise. Meanwhile, imports will fill gaps in supply.

For the present, decisions have aready been taken to establish an olefins complex using natural gas or naphtha as feedstocks based on techno-economic considerations at an initial cost of Rs 459m (about £30m), an aromatics plant for recovery of benzene, toluene and xylenes at a cost of Rs 1bn a DMT/TPA plant with a capacity of 120,000 tonnes at a cost of Rs 400m and a polyester fibre project with a capacity of 45,000 tonnes at a cost of Rs 400m. Foreign tie-ups for some have been negotiated but this expanding area leaves wide scope for more technical collaboration agreements within the framework of the Government's policy.

The Government's overall programme for petrochemicals leaves substantial scope also for the expansion of the private sector. Important areas identified for it are PVC, vinyl acetate, phenol and phthalic anhydride. Since production of thermo-setting plastics like urea formaldehyde has remained stagnant, this is an industry that is particularly amenable to decentralised production by small and medium sized entrepreneurs. A study is to be made on the possibility of harnessing the full potentialities in this area, including fuller utilisation of existing capacity.

Landmark

So far, the major landmark in petrochemicals is the setting up of the massive complex of the Indian Petrochemicals Corporation (IPCL) at Baroda where a naphtha cracker and downstream units are being commissioned this year. A beginning is being made in Assam through Bongaigaon Refinery and Petrochemicals, while the West Bengal Government has been given the green light for another complex at Haldia. The State is pursuing the project vigorously and is seeking private investment and foreign collaboration in what it hopes will be a major new industrial project in West Bengal.

IPCL was launched in 1969 and its Baroda complex consists of an aromatics project and an olefins project comprising a naptha cracker, pyrolysis gasoline hydrogeneration plant, benzene extraction unit and butadiene extraction unit. Its downstream units will make low density polyethylene, polypropylene, ethylene glycol, polybutadiene rubber, acrylonitrile, acrylic fibre and detergent alkylate. Approval has been given for fresh investment in a 55,000-tonne VC-PVC project, a 10,000-tonne acrylates project and expansion of the DMT plant from 24,000 to 30,000 tonnes.

Various units of the aromatics project went into production in 1973-74 and output of DMT in 1977 at 24,496 tonnes was higher than the installed capacity, while that of xylenes was claimed to be the best possible based on the aromatic precursors present in the naphtha presently available. The olefins project consists of a naphtha cracker (with an estimated annual throughput of 450,000 tonnes of naphtha) and associated units for extraction of benzene and butadiene and hydrogenation of pyrolysis gasoline.

Downstream units have been approved to make use of various gaseous streams and other liquid products available from the olefins project and these will lead to substantial production of low density polyethylene, polypropylene, ethylene glycol/ethylene oxide, polybutadiene rubber, acrylonitrile, acrylic fibre and detergent alkylate. The olefins project and its downstream units, involving a total investment of Rs 3.468bn, are in the final stages of completion and many have been or will be commissioned this year.

The Bongaigoan refinery ano petrochemicals units are also nearing completion and the latter should be ready by early 1980. The investment involved is Rs 1.27bn but this is likely to be revised upwards. A project for manufacture of polyester filament yarn at Baroda with a capacity of 3,500 tonnes annually (and to be raised to 7,000 in the second phase) is being implemented by Petrofils Co-operative, a multi-unit co-operative society in which the Government has a 60 per cent share.

When commissioned it will be the biggest polyester filament unit in the country with its polycondensation unit converting DMT into polyster chips and the spinning unit making the chips into filament yarn. Production from one of the spinning lines started last November on the basis of imported chips. The three remaining spinning lines are expected to be commissioned this year and the polycondensation units next year.

Funds

Few gave much chance to the Haldia petrochemicals complex when the Central Government gave its blessing to it without promising that funds would also be made available. This has not deterred the Marxist West Bengal Government and it has already invited tenders from 20 selected companies in Japan, Britain, Romania, West Germany and France. Quotations are expected by September and the State will take decisions on technical collaboration soon after that.

It expects to start preliminary work from next April, having already received letters of intent for five products at a total investment of Rs 1.6bn. These are for a naphtha cracker, PVC, high density polythene, ethylene oxide and ethylene hexanol. Exercises are now in progress to identify which parts of the plants can be fabricated in India but foreign collaboration will almost certainly be the eventual answer.

This is no precedent, since IPCL's units have collaboration announcements with companies from many countries and more proposals are to be invited. The State Government, which is studying the possibility of setting up downstream units based on imported feedstock, has limited the role of the private sector to third-tier end-products.

K.K.S.

WALCHANDNAGAR

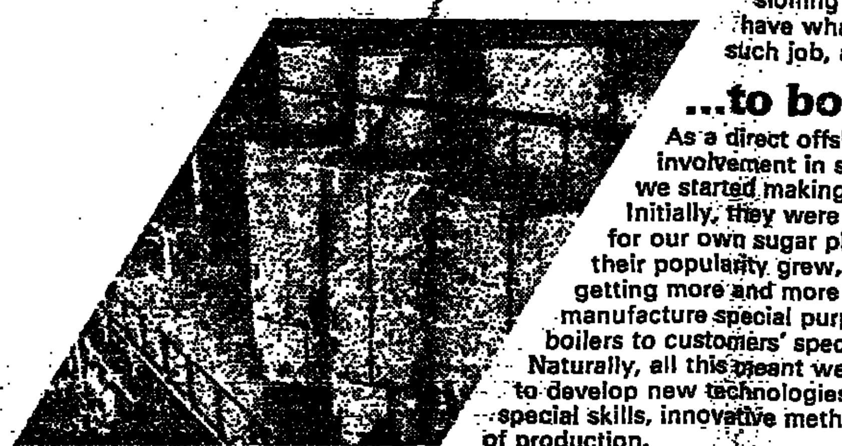
Where action originates

From Sugar Technology...

Walchandnagar Industries Limited is a very dynamic, multi-directional enterprise. But for over half a century, its name has been synonymous with sugar.

In the early days, our entire life revolved around sugar.

We grew sugar cane. We built a mill to crush it. And we made sugar. In ever increasing quantities.



View of evaporator station

Then came the Industrial boom. And from making sugar, we went a step further and started manufacturing sugar-making machinery. Before long we had the complete capability to set up entire sugar plants.

Our first plant was commissioned in 1961. To date, we've set up 35 plants on a turn-key basis, in India and abroad. Taking total responsibility for project design, manufacture, erection, commissioning and performance. And we have what it takes to undertake any such job, anywhere in the world.

...to boilers.

As a direct offshoot of our involvement in sugar technology, we started making boilers.

Initially, they were made specifically for our own sugar plants. But as their popularity grew, we started getting more and more orders to manufacture special purpose boilers to customers' specifications.

Naturally, all this meant we had to develop new technologies, special skills, innovative methods of production.

Take welding for instance. Proper welding procedures for achieving radiographic-quality welds were developed, and welders were trained, for performance qualification. Earlier studies in welding metallurgy provided a sound base for critical welding, particularly for jobs such as Nuclear Reactor Vessels.

Constant research and development have paid off.

From manual welding...

Today we can handle any critical welding job, no matter how big or how complicated it is. We have the facilities and the expertise in welding by shielded Metal Arc, Gas Tungsten Arc, Gas Metal Arc with various metal transfers such as short arc/spray arc, semi-automatic or fully automatic submerged arc as well as submerged arc-orbital welding, Tube to Tube and Tube to Tube sheet welding using the fully automatic gas Tungsten Pulsed (cool) Arc method.

Another area we have developed expertise in is metal spraying for surface treatment.

With this kind of potential, it was but natural that we diversify our activities. So we took on everything from chemical vessels, pressure vessels and heat exchangers, to complete plant and machinery for cement and paper.

Our biggest achievements to date have been heavy engineering jobs for nuclear power stations. Few people in the world have the capability for handling these massive, high-precision, manufacturing projects—we've built dump tanks, end shields, end shield rings, fuelling machine carriages—all to very critical ASME III and VIII specifications.

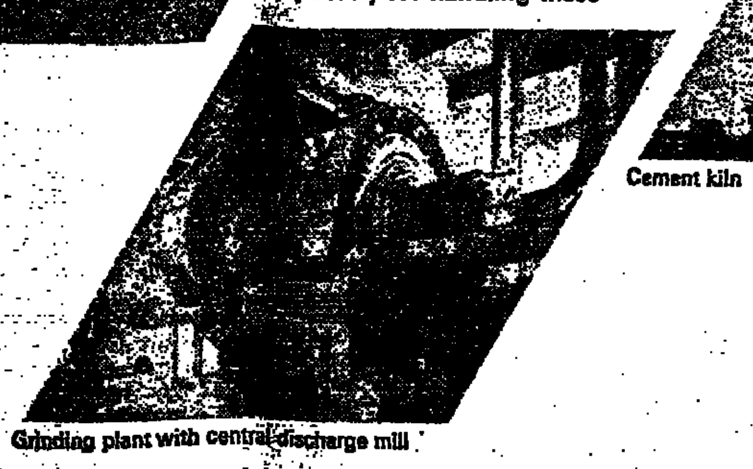
Boiler pressure vessels

...to sequential trepanning.

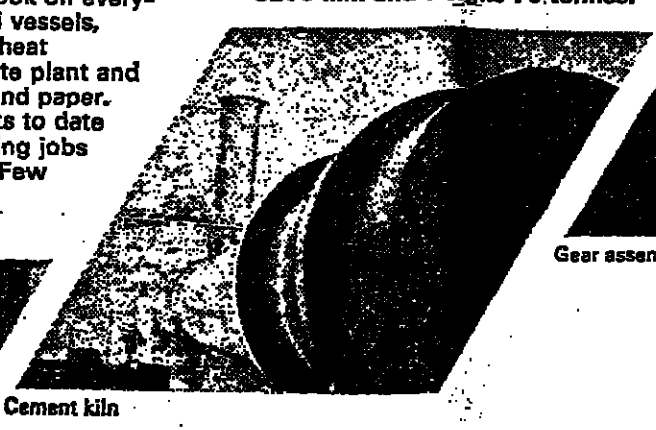
The end shields are machined out of huge, 70-tonne slabs of steel.

One of the most crucial stages of its manufacture involves high-precision boring of 300 holes of 200 mm diameter. For this, we had to devise a complex sequential trepanning procedure to ensure that distortion limits of 2 mm are maintained over the entire five meter area.

Another highly co-ordinated and extremely critical operation is the shrink fitting of the 70-tonne slab assembly into a stainless steel Hat which itself weighs 22 tonnes. This calls for highly regulated heating and expansion at temperatures as low as 250°C in a special 15 metre by 5 metre gas-fired furnace. The Dump Tank too calls for exceptional precision in fabrication. It is made of 304 L stainless steel and measures 8000 mm x 5000 mm x 3200 mm and weighs 70 tonnes.



Grinding plant with central discharge mill



Cement kiln

We're geared for action.

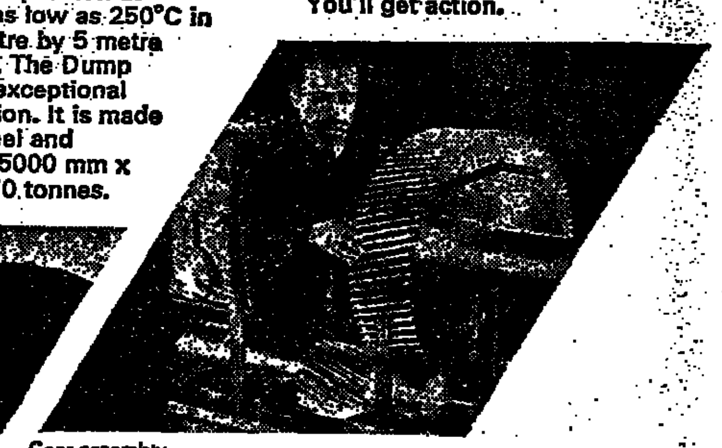
Talking about massive jobs, we've made our mark in yet another field. The manufacture of large-size marine gear boxes.

These gear boxes are coupled to steam turbines which generate 15,000 HP at 5750 RPM. We had to devise a special set-up for a Back-to-Back Test to check the performance of our gear boxes at full load, full speed and overspeed conditions—a procedure that had never before been carried out in the country.

That, of course, is nothing new to Walchandnagar.

In fact, we've made a name for ourselves for taking on seemingly impossible tasks, and coming through with flying colours. If you have a challenging fabrication or machining problem that needs a solution, come to Walchandnagar.

You'll get action.



Gear assembly

WALCHANDNAGAR INDUSTRIES LIMITED

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Works: Walchandnagar, Dist. Pune, Maharashtra, India.

The Nargol Hydel project.

Constraints imposed by power supplies

MOST INDIAN business executives are philosophical about labour trouble but they are seething with anger over the erratic power supply which is a major constraint on production they can do nothing about. Reporting the loss of 4,000 vehicles in 1977-78, Mr. S. Moolgoakar, chairman of Tata Engineering and Locomotive Company (TELCO), devoted a major part of his speech to the company's annual general meeting to a blistering attack on the Government for its handling of the power situation. Mr. Moolgoakar's was an unusual speech but it is an indication of the frustration that all Indians are experiencing and it is worth quoting at some length from it to show the depth of feeling on the subject.

"While industrial unrest is hopefully a temporary phase, the most distressing part of the power shortage is that there is no respite in sight for your company—or, indeed, for practically the whole country—in the immediate future. This is the result of the confusion that has plagued the entire area of generation and power plan implementation for quite some time. It has been a characteristic of all our Five-year Plans that there have been increasing shortfalls in meeting power targets.

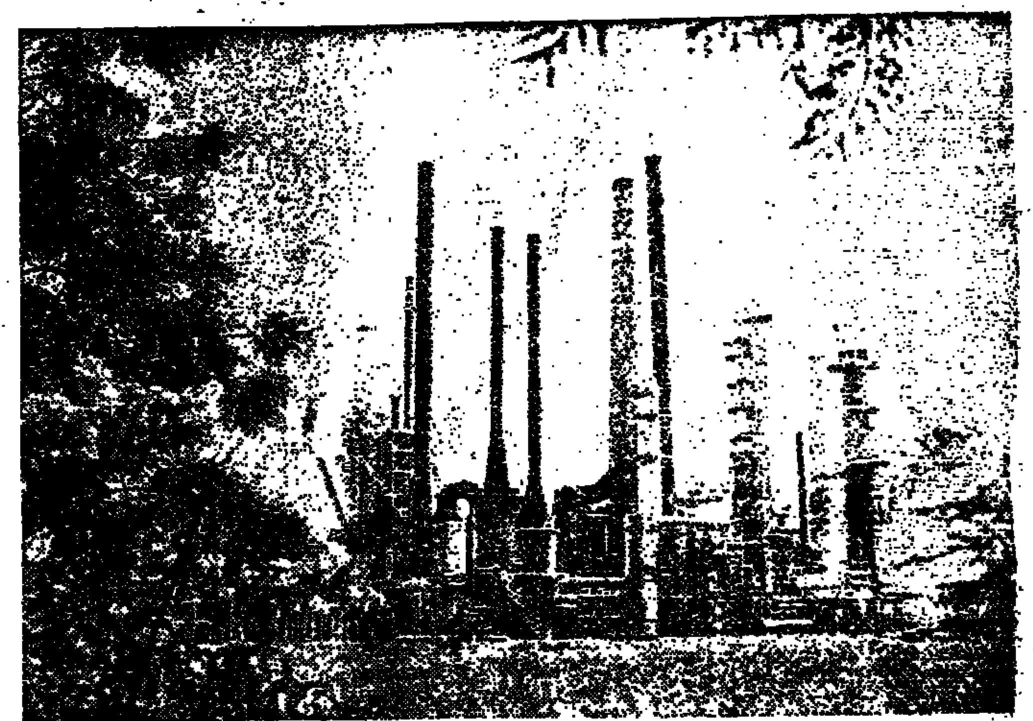
Inefficient

"The inefficient utilisation of our public sector thermal capacity, the enormous transmission losses and thefts of power all speak poorly of the management of power undertakings. There continues to be a total inability to enforce even a modicum of discipline and the power crisis has now grown into the single largest deterrent to investment and growth.

"Comment on the power crisis is perhaps futile. The example of your company is adequate proof, if one were needed, to show how the enormous wealth producing capacity of our manufacturing industry is being impaired, how employment opportunities are being permanently lost and how the national exchequer is being deprived of hundreds of crores of rupees of badly needed revenue—all because of the crippling power shortages."

The Planning Commission has boldly set a target of creating additional generating capacity of 18,500MW in the next five years—just short of what was actually achieved in the last 15 years. It admits that even if this target is fulfilled—and if past experience is any guide this is a futile hope—there will be continuing shortages in parts of the country. The only suggestion that the Planning Commission and the Government are aware of the situation is the vague statement that "interim measures to alleviate such shortages are under consideration." This hardly provides comfort for the long-suffering power-hungry consumers in all sectors of the economy.

The Government recognises the importance of power generation not only for industrialisation but also for agriculture, which it is committed to promote. The "rolling Plan" for 1978-83 has more than doubled the outlay on the power sector from Rs 70bn in the Fifth Plan to over Rs 157bn, which includes commencement of work on three "super" thermal plants and



Hindustan Petroleum Corporation's fuels refinery at Chenbar, Bombay.

commissioning of two units in the Madras atomic power station and the first unit of the nuclear plant at Narora in Uttar Pradesh. Of the 18,500MW of additional electricity to be generated in the next five years, 13,000 will be thermal, 4,500 hydro and 925 nuclear.

The Energy Ministry wanted the targets pitched higher, a surprising projection in view of past failures in implementation. For instance, against a target of 9,264MW of additional capacity during the Fourth Five Year Plan, only 4,580 was actually created. The story in past Plans is similar, with the result that the average installation of additional capacity annually works out to a relatively insignificant 1,700MW compared to the requirement of 3,700.

Target

It is hoped to achieve what is clearly an ambitious target through five "super" thermal plants to be operated by the central Government at Singrauli, Ramagundam, Neyveli, Korba and Badarpur, although there is considerable doubt over the country's ability to manufacture parts of the 500MW stations. A major part will have to be imported, although by the time these are to be installed, Bharat Heavy Electricals, the Government-owned electrical equipment company, hopes to be in a position to take on the jobs.

The commissioning of an additional nuclear capacity of 925MW is also optimistic considering there has been a slowing down in the nuclear energy programme following political difficulties with collaborators after India's nuclear bang in May, 1974. The first unit of the Rajasthan station, which was commissioned in December, 1973, is still going through teething troubles, while substantial imports of heavy water from Russia are being made for the second unit (the Rajasthan project is a major cause for the power shortage in the northern region). A number of heavy water plants are planned indigenously but none is at present functioning.

The heavy investment in power generation is obviously intended to overcome inadequate allocations in the past for power and to make possible additions to generating capacity. But these are essentially long-term solutions, even if successfully carried out. It is widely recognised that availability of power can be increased and shortages mitigated to some extent by ensuring optimum utilisation of existing capacity and operation of plants to maximum efficiency. Steps are being taken to improve efficiency of thermal units and to check losses in transmission.

What is lacking is the toning up of State Electricity Boards, a majority of which are hampered by political interference and which need to be thoroughly overhauled, as a recent Parliamentary committee observed. The power situation is often blamed on the monsoon and the lack of adequate hydro generation. The Industry Minister's recent package of measures to stimulate industrial production takes into account the power situation. But it depends largely on hydro generation, which at present does not account for more than 40 per cent of power supply capacity. The main reasons for the recurrent shortages are ineffective functioning of the thermal stations and huge transmission losses which range from as much as 33 per cent in Haryana to 18 per cent in Maharashtra as compared to an average of just eight per cent in Western countries.

When the power crisis was at its peak some months ago, the Government appointed a group of German experts to examine the working of thermal plants. The group's report is being kept secret but it is reported to have been highly critical of the operational efficiency of the thermal stations, the maintenance of the equipment and instruments of which is far below internationally accepted minimum standards. This is the cause of poor utilisation of installed capacity. The group has recommended a complete overhaul of the stations after pointing to the low capabilities of overstaffed technocrats and the general neglect by the managements of water chemistry.

The managements, in their turn, have blamed the faltering performance on the poor quality and erratic supply of coal. This is a major factor since Indian coal has a high ash content and the quality of supplies varies. Boilers, not getting coal of the right specification and consistency, get damaged easily and cause maintenance problems and breakdowns.

Experts believe that if utilisation of capacity can be improved by even a small percentage, much of the immediate problem will be solved. Since it is basically due to poor management that utilisation of capacity is low and breakdowns frequent, almost every committee appointed has recommended a shake-up of State Electricity Boards so that they are managed entirely by technical men and not by politicians.

Notorious

It is not uncommon to find the Boards are headed by politicians found unfit for other posts. Since they are the principal agencies for carrying out power development programmes, they are notorious not only for inefficiency but also corruption. Says a parliamentary committee of the method of executing power projects: "Hardly any perceptible improvement has been effected in the institutional arrangements for survey, investigation, preparation of power reports, communication of sanctions, etc. with the result that projects drag on for years."

The present government is making efforts, albeit ad hoc in nature, to improve the power situation. Because of the comfortable foreign exchange position, imports of generating sets are being permitted and industrial units are being encouraged to establish "captive" plants. These will either supplement supply from the public system or cater entirely to their needs although they will take time to establish, certainly more than is available to improve industrial production.

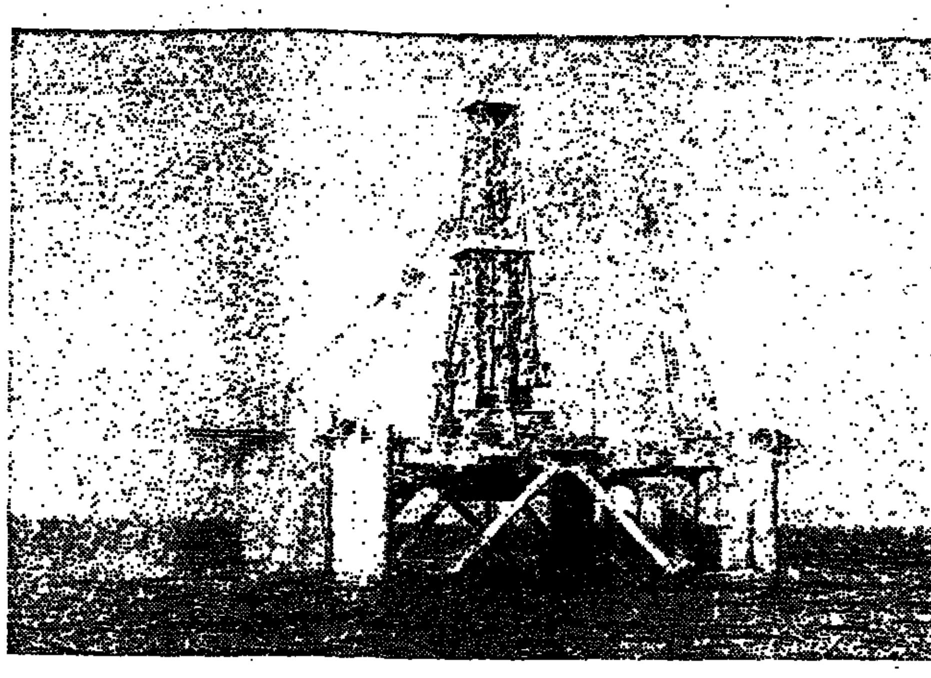
Meanwhile, monopoly restrictions are not being allowed to come in the way of establishing fresh capacity—the sanction of the "super" thermal station at Trombay for the Tatas, the proposal for which had been made nearly five years ago, is a major example. Bharat Heavy Electricals is importing components to stock so that maintenance needs of plants originating from almost every major country in the world can be met. In the absence of standardisation of the plants, this is unavoidable. But these measures are not expected to materially alter a difficult situation and power generation will continue to be a major constraint for years to come.

K.K.

Quite apart from her agricultural resources India is well endowed with industrial raw materials, including coal, iron ore and bauxite, and some big expansion projects are now under way or planned. Improvements in internal transport facilities and in the ports will be needed to make the best use of these investments.

Oil achievements

A SHORT while before this year's monsoon hit the western coastline of India in June, crude and natural gas started flowing down the 203-km dual pipelines from the Bombay High offshore oilfield to the coast. This was an important achievement by the Government-owned Oil and Natural Gas Commission (ONGC). Even a week's delay would have meant postponement of the pipeline project until September since work on it is impossible during the rough weather of the monsoon. It would have resulted in interruptions in crude supply from Bombay High where oil was, until the pipelines were commissioned, stored in a large tanker and then shipped ashore aboard smaller tankers which do not always sail in stormy seas.



An oil rig near Bombay.

More important, completion of the dual pipelines means that associated gas from Bombay High is no longer flared in the seas. As much as 1m cubic metres was being wasted every day and this quantity will now be available as a vital feedstock for fertiliser, petrochemical and power plants. Unfortunately, political squabbles have come in the way of formulation of plans for all these plants and the natural gas is for the moment being used mainly for power generation. Nor, until a fractionalisation plant is completed in two years, will gas be available as domestic fuel. Yet a beginning has been made towards ONGC's direct contribution to India's industrial growth and it richly deserves commendation for completing the vital pipelines project in record time.

Dramatic

Until now ONGC's dramatic discoveries in the western continental shelf have been confined to crude production. The major finds are restricted to Bombay High but production is soon to be extended to Bassein and other fields in the neighbourhood. Output from the offshore structures is expected to cross 100,000 barrels a day by the end of 1978 or roughly a level of 5m tonnes a year. This equals approximately a sixth of India's needs or half of domestic production. Plans are to raise production to 10m tonnes by 1980-81, although the Planning Commission has recommended that output should be limited to 9m tonnes so that reserves are conserved for the future when foreign exchange would become a constraint again and world prices may be higher.

That thought can be given to restricting production is a measure of the remarkable performance by the country's two exploration organisations, ONGC and Oil India (the latter is expected to be fully owned by the Government by the end of this year following prolonged talks with Burmah Oil on takeover of its 50 per cent share). According to the last annual report of the Ministry of Petroleum and Chemicals, crude imports reached 14.7m tonnes in 1977, just 700,000 tonnes more than in 1976. In 1977 crude throughput in the refineries was 24.4m tonnes, which means that India produced nearly 10m tonnes last year.

Production will increase both from offshore and onshore sources but so will consumption at roughly 7 to 8 per cent annually; by 1980 requirements will be about 30m tonnes. From present proven oilfields, both onshore and offshore, production by then will be roughly 15m tonnes, or sufficient to meet half the country's requirements. Long-term projections are that India will need 47.5m tonnes by 1987-88.

Yet there is no longer the same sense of urgency in respect of exploration and production that was evident after the 1973 oil crisis, which made a big dent into foreign exchange reserves and export earnings. The economy has by now adjusted to the world oil price situation, as is apparent from the rapid rise in foreign exchange reserves and the comparative lack of inflationary pressures. This is the main reason for the Planning Commission's caution about using oil reserves since the prognosis is that oil prices during the coming decade will reach $20 a barrel and more and foreign exchange is unlikely to be easily available then.

The Planning Commission has not made it clear whether it wants the entire gap in production to be met through imports or whether it wants cheaper methods of extracting crude to be used. If the latter alternative is to be explored, the suggestion is that ONGC and Oil India should concentrate on exploration of onshore reserves. This may not be as cheap as thought since recent strikes are in such inhospitable and inaccessible areas as Arunachal and other parts of north-east India. Problems of distribution of crude and gas available there might make production as difficult and expensive as in offshore areas.

Both the exploration organisations are making efforts to locate new fields apart from those in Gujarat and Assam, from where all present onshore production comes. Exploratory drilling in most other parts of India, with the exception of the difficult terrain in the north-east, has not been fruitful, although efforts continue. ONGC has finalised a plan for intensive exploration in the eastern region for the next five years which includes drilling in Assam, the Arakan basin, the Brahmaputra Valley and Tripura. Total metreage of 393,900 with 11 rigs is planned in the hope this will increase the production rate from the region from the existing 2.01m tonnes.

ONGC feels that on the basis of available data and geological studies production of 5m tonnes annually from its eastern concessions is a distinct possibility. This would be in addition to Oil India's contribution from the region, to which its operations are at present limited. Oil India has been given another onshore-offshore concession in the Mahanadi basin which it is pursuing vigorously since seismic and other data have shown promising possibilities. It plans to spud its first well there next January. Other onshore areas being explored by ONGC include those in northern India—where gas has been found in the hilly regions—and the south, but so far without success.

Inevitably therefore the emphasis has shifted offshore. The Government has decided that no foreign companies will be granted any more concessions after two groups drilled briefly in the Kutch and Bengal basins. They fulfilled their contractual obligations but left the impression that they did the minimum possible even though the prospects were good. ONGC has been given the major role in offshore exploration, largely because of its successes in the western continental shelf and the expertise it has gathered in the process. After all, the prestigious Bombay High went into production just three years from the time the first strike was made, a performance that is probably unmatched.

It plans to explore the concessions abandoned by the foreign groups, but inevitably faces resource constraints. Now that the Government feels there is not the same urgency for exploration as during the critical years after 1973, funds for exploration may be more difficult to find, especially as the pricing policy gives ONGC and Oil India less than half of the OPEC rates. But since alternative sources of energy are proving difficult to develop—there is currently a coal shortage while the nuclear power programme has suffered major setbacks—oil will still have an important place. In fact the Planning Commission's allocation in the draft plan for 1978-83 shows that it attaches enormous importance to oil and its caution is therefore somewhat puzzling.

Efforts

Not so well-known are ONGC's efforts abroad, probably because they began recently and in a small way. It has successfully explored for gas in Songo Songo Island on contract for the Tanzanian Government despite an initial blowout. Its concession in Iraq was also operated successfully and oil was struck; unfortunately, the flow was not sufficient for a country already rich in oil, although the strike would have been commercial in India. Iraq, has, however, agreed to use ONGC's equipment and personnel for contract drilling and this is a tribute to its expertise. ONGC has won a concession in Syria and operations are to begin there soon.

Collectively, after winning laurels at home, ONGC has performed satisfactorily in the short time that it has been looking outside, and Third World countries which hope to become oil producers have sought its assistance.

At present there are 10 refineries in India with a total capacity of 27m tonnes in terms of crude throughput. With the commissioning of the new 6m-tonne unit at Mathura, now being built with Russian help, and the expansion of the Koyali refinery by 3m tonnes and commissioning of the Bongaigaon refinery, total refining capacity is projected to reach 37m tonnes by 1980-81.

Indian Oil Corporation, the largest company in the country, remains the giant, although other public sector companies have started functioning now that the foreign refineries (Burmah Shell, Exxon and Caltex) have sold out to the Government (they have since been renamed as Bharat Refineries and Hindustan Petroleum). The only foreign interests are the minority holding of the National Iranian Oil Company in Madras Refineries and of Phillips Petroleum in the Cochin unit. But with the take-over of Burmah Oil's share in Oil India, control of the oil industry will be entirely with the Government and further reorganising and restructuring will become inevitable.

K.K.S.

Big discoveries of bauxite

THE INDIAN GOVERNMENT is positively euphoric about the future of the aluminium industry after the recent massive discoveries of bauxite deposits along the eastern coast. The Steel and Mines Minister, Mr. Biju Patnaik, says the discoveries put India on "the world map for the production of alumina or aluminium and raise the hope of large alumina or aluminium complexes which could transform the situation in regard to non-ferrous metal production and supply in the country."

His optimism stems from the fact that while known bauxite reserves in India just five years ago were only 250m tonnes, the eastern coast finds have raised them close to 5bn tonnes, or around a fifth of the world's reserves. Mr. Patnaik is naturally "excited" by the prospect and feels that the newly discovered deposits could set off a cumulative growth process "that could surpass the past rates of growth of all industries in the country."

The Government has moved quickly to exploit the deposits. The State-owned Bharat Aluminium Company has signed a contract with Russia's Traventpromexport for making a feasibility study for an alumina plant of 600,000 tonnes annual capacity on the east coast of Andhar State. The Soviet agency is also expected to make a study for the setting up of a bauxite mine in Andhra.

Even bigger is the project that the French group Aluminium Pechiney—among the four largest aluminium producers in the world—has been asked to launch. It is to make a feasibility study for a large bauxite-aluminium complex in Orissa State. This envisages a bauxite mine, an alumina plant of 600,000 tonnes to 800,000 tonnes annual capacity and an aluminium smelter with a capacity of 160,000 tonnes.

Like other projects that Mr. Patnaik has sponsored for development of the steel and iron ore industry, this complex is also export-based. To the foreign financier willing to provide the funds to develop the project, the complex will supply a major part of the alumina, possibly as much as 450,000 tonnes annually. The Shah of Iran has already shown interest in this and the groundwork for a crude-for-alumina deal has been laid.

On the face of it, it would seem that the only constraint is India's ability to use sufficient Iranian crude to generate the substantial rupee resources required for investment in the complex.

But the big obstacle is availability of power, a major input for both alumina and aluminium. Mr. Patnaik claims that in the course of time the two projects would produce a total of 1m tonnes of aluminium annually, placing the country in a commanding position in the world aluminium industry. But production of 1m tonnes will need about five power plants each of 500MW capacity; the prospects for creating this capacity solely catering to the needs of the two projects is bleak in the context of India's acute electricity shortage. Even if foreign financiers are available for the power projects required, there is considerable doubt whether the Government will commit itself to schemes which are almost entirely export-based and which will erode considerably the coal reserves in both Orissa and Andhra.

The ever-optimistic Mr. Patnaik feels that exploitation of the bauxite will be part of a "package" of which power development will be a part. His Ministry has dodged the question of using coal reserves—and the related questions on the economy of thermal and super-thermal stations—by referring to possibilities of using hydro power. But this ignores not only the much larger investment involved in developing hydro potential but also the longer time this will take, particularly in the eastern region.

The power situation in relation to the aluminium industry is such that some senior industrialists have suggested the

CONTINUED ON NEXT PAGE

Losses in the coal mines continue to mount

COAL INDIA'S richly-panelled headquarters in the centre of Calcutta's business district, stand in stark contrast to the poverty-ridden pavement life to be found on the streets outside. They are said to stand in even greater contrast to the life of the miners hewing coal in underground mines in Bihar, perhaps the poorest of the eight Indian states the industry covers.

In fact the position of the 600,000 miners in the industry has improved considerably since September 1975, when Coal India came into being under a second restructuring that followed nationalisation under Mrs. Gandhi in 1973. For one thing the miners have received large wage increases from the paltry sums of before, and can expect more when their agreement is renewed at the end of the year.

That, however, has contributed to other problems. In spite of passing on the higher wage costs, Coal India's prices remain so low (one-third the price of oil) that its losses are continuing to mount (a record Rs880m last year) and are becoming a political as well as a financial headache. At the same time those coal price rises which have occurred are being used to decry nationalisation as a failure.

Worst of all for Coal India, the problems of persistent power shortage, unsatisfactory steel output, irregular coal supplies and unreliable rail transport, which are all being blamed on each other in a great bout of buck-passing now preoccupying the public sector, appear to have left coal looking the most battered.

Coal India's chairman, Lt. Gen. K. S. Garewal, insists that no production has suffered in India for want of coal, and officials say the noisy complaints about coal are coming from the 95 per cent of consumers who take 5 per cent of the output. But the shortfall is worsening the under-utilisation of capacity across a broad cross-section of Indian industry and the problems remain unsolved, although stockpiles are being used and committees have been convened to help co-ordinate the various sectors concerned. Indeed, the flow of coal has recently begun to improve.

Production of coal, a key source of power in India, has itself suffered from power shortages. Mines need the electricity for ventilation, for raising, hauling and loading coal and for the washeries. Coal India officials describe these shortages as their biggest problem, having overtaken last year's chief bugbear, an explosives shortage.

The explosives shortage was caused mainly by industrial action at two companies, Indian Exploseives and Indian Detonators, though power shortages had an impact on explosives production, too. The effects are still being felt. Coal India is importing over the next two or three months anything between 3,000 and 6,000 tonnes of explosives in order to avoid a hold-up in production as seasonal peak outputs start being reched at the end of the year.

Housing

Industrial action has taken its toll in the coal industry as well. Mines suffer from go-slows and strikes over anything from housing to the effects of power cuts, and with five unions representing the miners rivalry between them is inevitable. Absenteeism is also a problem. This year's negotiations are being approached particularly cautiously by Government and management.

The serious railway bottleneck, which has a powerful impact because 80 per cent of coal mined goes to major consumers by rail, is partly the product of incompetent railway management and labour problems and partly the result of inefficient manual wagon handling at the mines. But the main difficulty is the shortage of wagons caused by the need to move large stocks of perishable food grains and much-needed fertiliser and cement. The monsoon has simultaneously added to the trouble.

The turnround time for railway wagons has increased substantially in recent months, perhaps by as much as a half. In June Coal India took over full responsibility for marketing and distribution of coal, with the realways acting as carrier only.

Experts say, however, that even without the rail problem, India's coal industry would be performing below par. They point to inadequate pricing policies, low prodctivity, stagnant output and under-mechanised mining methods. Though a more coherent long term policy is now in train under the rolling ten-year perspective plan known as Project Black Diamond, much remains to be done.

As in Britain, India's coal industry has suffered from its own start of the country's second Plan of 1956 the railways were the single largest consumer. But with greater use of disel engines and electrification, rail demand fell, and though it was overtaken by demand from the power steel and other sectors as industrialisation proceeded, it took the oil crisis of 1973-74 to put a new lease of life into the industry.

Thus, while production repeatedly fell short of target in the second, third and fourth plans—partly because not enough licences were granted to import parts for plant and machinery—the first two years of the Fifth Plan saw annual targets exceeded. But demand turned sluggish, output stagnated and pithead stocks climbed. Then with a turnround last year, power shortages and labour troubles struck, and stocks had to be depleted.

This sensitivity in demand and supply is what makes Lt-Gen. Garewal emphatic about the need for a proper national stocking policy. He says every consumer should have 45 days' stocks, the cost of keeping them being less than the cost of not having coal available at all. Whatever the case, this year people are talking of scarcity in the midst of plenty because of th evarious problems between coal-face and customer. Pithead stocks are too low, but productivity too has not improved enough—it is still a fraction of European levels.

The need for greater mechanisation is emphasised by the atrges set under the present draft five year plan, which envisages production of 144m tonens from public sector mines by 1982-83 (another 5m tonnes is to come from the captive mines of the TISCO and IISCO steel plants). This is optimisitc by historical standards; last year's output was barely 100m tonnes. About half is expected to come from open-cast mines.

The real complaint from the producers, however, is over low pricing. Coal prices were raised for the second time since nationalisation in January, 1975 when miners' wages were increased by over Rs 100 a month. Altogether prices have risen about 200 per cent since nationalisation, while wages have climbed 400 per cent. But both remain low by European standards. Coat is Rs 60 (£4) a tunne at the pithead. Coal-face workers, for whom the fatality rate is high, receive only Rs 130 (£2) a day.

The main complaint is not that prices are not matching wage awards but that no price rises are allowed to cover depreciation and interest. At Rs60 a tonne, prices are about Rs12 below break-even point. Meanwhile it is being purchased at closer to Rs200 a tonne on the west coast, away from the mines, because of the rail, handling and insurance charges, which have been allowed to rise.

A front end loader produced by Bharat Earth Movers.

Thus there is unhappiness that an exporting steel plant depends for success on cheap coal which, if it was exported directly to those demanding its widely sought low sulphur qualities, would yield even more money and earn Coal India the credit it now fails to receive. Opponents have little answer to this but retort that Coal India needs to improve its management and its industrial relations record. There is much talk of again restructuring the whole industry.

In spite of Coal India's claims that no production has suffered because of a coal shortage, the export programme has had to be reconsidered. India had planned to export 2m tonnes in 1977-78, and the Minerals and Metals Trading Corporation last year launched an export drive in Western Europe to take half of it. Altogether 648,000 tonnes were exported, about half to the EEC.

Programme

Coal India says its commitments are being met, but that it is not accepting new obligations at the moment. Countries abroad are nevertheless keen to buy Indian coal. Earlier year Japanese companies i cated they wanted a long-t coal import arrangement. It was a reluctant seller.

Over the next four-five ye it is said, exports are unlik to exceed 1.5m tonnes annua On the import front, 1m ton a year is planned by 1982 mostly of the high qual coking coal which India is able to produce for it because of the high ash con of the local coal.

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Bauxite

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Government should consider exporting bauxite for processing into aluminium on a "toll basis" to countries having adequate power supply. They believe it would be to India's advantage to persuade Japan and the Scandinavian countries like Norway to use their surplus power for processing Indian bauxite as was done in the case of zinc concentrates many years ago.

As it is, lack of power has led to a tussle between the aluminium industry and the State Electricity Boards. The most recent is the confrontation between the Uttar Pradesh Board and Hindustan Aluminium which has resulted in a recommendation by the State's Power Minister to the central Government for nationalisation of the Birla-owned company.

Considering the optimism of the Steel and Mines Minister over the future of the aluminium industry, it comes as something of an anti-climax to find that India will be short of the metal for the next five years. From an exporter just last year, imports of at least 20,000 tonnes are to be made on a "crash" basis (ironically, mainly to meet the needs of the power generation sector).

The Planning Commission has studied production trends and come to the conclusion that the deficit will rise from 53,000 tonnes in the period 1978-80 to as much as 97,000 tonnes in 1981-82 and to 103,000 tonnes in 1982-83. This is based on a high 85 per cent utilisation of capacity (compared to the existing 65 per cent) and the requirements of the Central Electricity Authority, which has an ambitious Rs 150bn programme for rural electrification that will need as much as 290,000 tonnes of electrical grade aluminium in 1982-83.

At present the installed capacity for aluminium production is 260,000 tonnes. Although there are 55 units, the bulk of capacity is accounted for by four companies—Indian Aluminium (96,000 tonnes), which is controlled by Alcan, Hindustan Aluminium (30,000), Bharat Aluminium (50,000) and Madras Aluminium (25,000). The public sector Bharat Aluminium is likely to expand its capacity by another 50,000 tonnes by the end of this year. Hindustan Aluminium has asked for another 25,000 tonnes but this has run into trouble because of its tussle with the Uttar Pradesh Government.

The industry is presently the paradoxical position of be dependent on the power gen tion sector for its main and of being also the sect main supplier. This dependence has taken the f of a much-criticised dual pric policy under which a price (fixed by the Governme is paid for "levy metal" electrical grade aluminium, which plans for transmiss and distribution of po depend.

The Bureau of Indust Costs and Prices has submit a report on the prices for aluminium industry and it widely expected that so modifications to the pri policy will be made. This complicated by the rise excise levies in the 1 Budget on commercial gra aluminium, the price of wh was raised by the industry compensate it for losses account of higher taxation. N that large-scale imports h become necessary, the pricing policy is expected—at least in alumini industry circles—to come to end.

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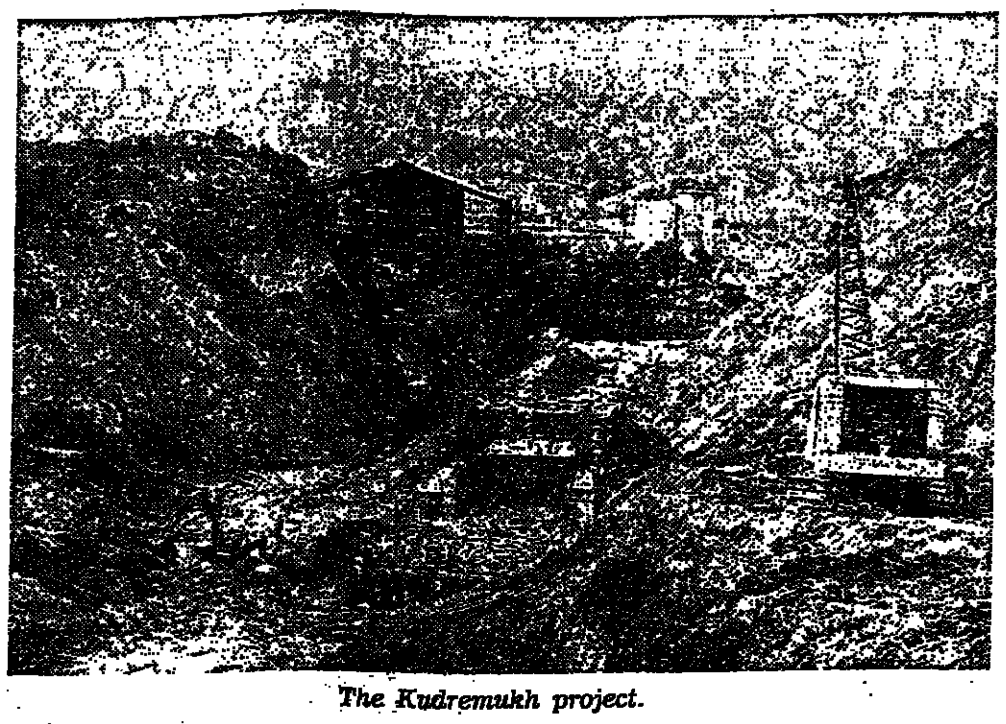
Sense of mission at Kudremukh

AN ATMOSPHERE of urgency fills the unimposing off-white building in Bangalore which houses the Kudremukh Iron Ore Company. The first indication is a sign prominently displayed adjacent to the reception desk: "536 days to go," it proclaimed starkly one day last month. Inside, workers on each floor move rapidly about their business as decisions are taken and orders are executed. A sense of mission penetrates all levels.

The focus of the activity is a mountainous site 360 kms further west, where mining of a vast 1,100m-tonne outcrop of mainly magnetite iron ore must begin by 1980, feeding steel plants far away in Iran. Some 30,000 men are working against the clock to beat what, without the Government's political commitment to the whole scheme, would seem an impossible deadline. As it is, India's largest-ever mining project and the enormous construction scheme associated with it could be one of the most efficient operations in the country today.



The Kudremukh project.

The main target is December 1979, for the "mechanical completion of works" prior to testing and commissioning. This includes construction at the site of storage silos, crushers, concentrators and a dam for tailings, and completion of a township for 3,000 mineworkers having shops, a cinema, hospital and a club.

Filtration

It also includes the laying of a 110-km road and 66-km pipeline to Mangalore on the west coast, construction of filtration and drying plants at the port and completion of stockpiling and shiploading facilities. On top of this the Mangalore port authority is deepening the harbour and building a wharf at Kudremukh's expense.

The tangible urgency springs from the terms of the deal with Iran. People have had their eyes on the ore body in the Western Ghats for years, and at one point in 1974 India's National Mineral Development Corporation had virtually sewn up a deal with Japan to supply iron ore pellets from the outcrop for its blast furnaces. But then the recession hit, steel's fortunes subsided and the Japanese withdrew. When Iran stepped in, tough negotiations began and a deal soon followed.

Under the sale and purchase contract signed in November 1975, Iran will receive 150m tonnes of iron ore in concentrated, virtually powdered form over a period of 20 years starting in September 1980, and is furnishing a $630m-loan in U.S. dollars to pay for it.

The figure for the loan came from the 1973 project report for the failed Japanese deal. This had referred to a pellet feed being shipped as a slurry, made no mention of the port facilities at Mangalore that India now undertook to build, and has since been outdated by inflation. There had simply been no time to commission a new project report.

The contract for the sale of the concentrate therefore contains a clause allowing for a rise in the selling price of 2.9 U.S. cents a tonne for every $1m increase in the capital cost, and an escalation formula allowing the price of $22 a tonne to increase after the first three years' deliveries to take account of changes in international prices and shipping costs.

As for the Kudremukh Iron Ore Company, that had still to be established, the whole deal having been concluded by the Indian Government in anticipation of being able to fulfil the terms. The company was set up separately five months later, the Iranians apparently wanting to keep the operation separate from other iron ore activities in India, no doubt to by-pass some of the bureaucratic and accounting obstacles. In August 1976 Canadian Met-Chem, a subsidiary of U.S. Steel with experience of a similar project in Canada, were appointed consultants.

To meet Iran's demands, about 22.6m tonnes of material will have to be mined every year to obtain the 7.5m tonnes of finished product that must be shipped, a level which the company hopes to reach within three years of starting production. The mining equipment will be the largest ever used in India, and the ore will have to be concentrated, made into a slurry, and then reconstituted into a precisely specified form suitable for direct reduction in the two electric arc furnace steel plants which Iran is building, also against a deadline.

The Kudremukh Iron Ore Company itself is peopled with men who have experience both of large-scale enterprises and the public sector, and they come typically from the steel sector. Kudremukh's chairman-managing director, for example, is K. C. Khanna, formerly of the Bokaro steel plant, a bigger project than even Kudremukh.

The challenges of Kudremukh are different, he says. "There is a time limit, and a penalty if we don't meet it. We have no alibi." Workers are therefore indoctrinated in the view that time matters: "No worker here has claimed overtime. We all work on Saturdays, and our senior people on Sundays, too."

Canadian Met-Chem, housed in the same building and contracted by Kudremukh to take entire responsibility for supervision and execution of the project, has a 40-year-old Indian with Canadian citizenship shouldering the bulk of responsibility as project controller.

Shanker Paul has no complaints about the support he has received both from the Government and from the main contractors. "No one is allowed to sit on any paper," he says, so the procedures to be followed in ordering and contracts go quickly: likewise the contractors, all of whom are Indian, have been right up to the mark.

Paul reckons there are people all over the country involved one way or another in the project, and that it is demanding an unprecedented degree of co-ordination and co-operation. Barely a single engineering firm within a 200-km radius of Bangalore is unaffected, he says, and with everybody geared to Kudremukh a problem of full capacity is emerging which the old difficulties of transport and railway bottlenecks beyond that distance prevent being cured.

Speed

Speed has meanwhile become the essence. Timing has become so tight that an 8-day delay because of a labour dispute with one of the suppliers or a power shortage can mean a loss of anything up to a month. As a result there is much "expediting" (a euphemism for heavy pressure) to encourage suppliers to fill their terms.

A critical point is also approaching with the start of a period when welders and other semi-skilled workmen will be needed in fairly large numbers. Such Indian workers are in short supply these days as many have taken their skills to the Middle East, where they can earn better money on short contracts. So far the Kudremukh project has not run up against this problem, but it is clearly a cause for concern.

In addition, though testing and commissioning will take only three to four months in early 1980 if the schedule is kept to, the leeway this provides for the September shipping deadline is minimal because the Kudremukh site receives 7,000 mm of rain—the second heaviest in India—in the June-September monsoon months, a problem confronting workers at this moment even though it has been allowed for in the schedule.

Khanna says the cost of the project is now put at $717m, representing an escalation of less than 10 per cent annually, a rise of which he is proud and which he says has been contained by the low equipment prices available during the world recession. With most of the necessary equipment bought, he hopes the figure will now become an upper limit.

Khanna is also broadly optimistic that the predictable problems can be overcome. Most of the steel is ordered and delivered. The dependence on the railways is not great because of Mangalore's proximity and the new road. Kudremukh is dealing directly with Karnataka and Kerala states over power supplies. And so far the labour position is satisfactory.

Having been behind schedule six months back, the project is now said to be on target. Two years ago the Kudremukh site was a beautiful wilderness. At this moment 30,000 workers are swarming over the area. In two years' time they must abandon the place to 3,000 mineworkers.

"If we succeed," says a senior Kudremukh official, "similar projects could be undertaken by this country with confidence." Khanna echoes this view. "The project has to succeed," he says, "because the penalties of failure are too great." Kudremukh is thus as important for India as it is for any of the politicians, companies and individuals backing it.

C.S.

Potential in iron ore

THE KUDREMUKH project takes India another step towards realising its enormous potential as a major iron ore producer. Estimates of reserves vary, but reliable calculations put proven reserves at about 7.5bn tonnes and inferred reserves at about 14bn tonnes. Last year India produced an estimated 41.6m tonnes, marking little change on levels of the previous two years. Most of it was from haematite ore. Kudremukh represents the first large-scale exploitation of the country's lower iron content magnetite reserves.

Only about 40 per cent of output goes towards meeting the requirements of India's steel plants, the rest being exported. The industry's growth is thus highly dependent on world markets. The Department of Steel notes in its annual report for 1977-78 that the acute recession in the world steel industry resulted in a slump in demand which meant that India's iron ore exports did not grow, producing large inventories at the ports, railheads and mines.

Japan, for example, which is the major importer of India's iron ore, taking over 60 per cent of total exports, is reported to have taken only 6m tonnes of ore from the Bailadila mines as against 8m tonnes provided for under the long-term contract signed in 1970 between Japan and the Minerals and Metals Trading Corporation of India (MMTC), the body handling about half the tonnage sent abroad. As a result, MMTC drew up plans to cut output from Bailadila. Protests at retrenchment by one of the private companies resulted in police firing at Bailadila in which at least 11 workers were killed.

IRON ORE OUTPUT
(m tonnes)

	1972-1973	73-74	74-75	75-76	76-77	77-78	82-83†
Production	35.7	35.7	35.5	42.5	44.4	41.6	65.0
of which:							
Internal consumption	15.1	12.0	13.2	15.5	17.6	19.7	25.0
Exports	20.6	23.7	22.3	26.1	26.0	21.9	40.0

† Projected.

Altogether the shortfall in Japanese shipments is said to have reached some 14m tonnes by March last year. In the 12 months to March this year India's total exports were 2.8m tonnes short of the 24.2m tonne target. Though some dent in the stocks may be possible with the pick-up in the steel market at home, there is continuing concern at this trend in the market abroad. The Government is reported to be considering a scheme under which Japan would technically increase its offtake, so that production could continue, but would not physically receive the ore, which would instead be further stockpiled. Negotiations between the two sides took place in April.

Japan has been an important market both because of its rapid growth and because it is geographically close, but India needs to broaden its outlets, particularly in the European countries, and to continue trying to improve its share of the world market, which by 1973 was put at about 4.3 per cent. Certainly production is scheduled to increase under the country's draft economic plan, with a target in 1982-83 of some 65m tonnes (including the 7.5m tonnes from Kudremukh), and the National Mineral Development Corporation is engaged in the development of new deposits.

The chances of actually reaching this projected output will be improved once new port facilities come on stream and bulk carriers can be handled, but experts doubt that it will be reached in the intended time. It is also reckoned that the profitability of iron ore mining and export suffers by high transport and freight costs. Both points suggest that the long term future of iron ore in India may well depend as much on supply factors at home as it does on demand factors abroad.

In addition, with blast furnace technology now tending to favour the sinter and pellets produced from iron ore "fines" rather than the "lumpy" ore, it makes sense for India to invest more in pelletisation facilities, to yield a product that is both needed and also of higher value. The country currently has two pelletisation plants operating with a total capacity of 1.5m tonnes, and a third 1.8m tonnes plant due in production this year will be shipping its entire output to Japan under a 10-year contract. There are now proposals for two further 2m tonne export-oriented pellet plants.

C.S.

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There has been criticism that India has tended to neglect the agro-based industries, in which she should have a comparative advantage, in favour of capital-intensive heavy industry. These industries account for a substantial part of industrial employment and of exports, but the scope for expansion, given suitable encouragement, is considerable.

Price worries for tea

THE DOWNWARD course in tea prices since the beginning of this year — at both the London and Indian auctions — seems to point to an inevitable conclusion. The boom which began early in 1974, and grew into a superboom in 1977, is fading, and sooner or later the tea industry in India as well as in other parts of the world may have to face market uncertainties like those of the lean years before 1974.

But this pessimistic conclusion is not as yet fully warranted by market trends. The London price has come down from 241p a kilo in April 1977 — the high point of tea's prosperity — to 118p a kilo in recent weeks, but it is still considerably better than the 63.6p a kilo which was the average for 1975. Moreover, some experts in the tea industry think that the world market is likely to witness an upturn within the next two or three months as global production is running behind the previous year's crop and may not match the estimated international demand for tea in 1978-79.

Decisive

Indian producers, however, are having to keep their fingers crossed. For them the decisive factors will not be the level of prices in London only but the policies and attitudes of their own government, which has completely gone back on its word to abolish the export duty when circumstances call for it. Although the year is over seven months old, it has not yet decided how much tea export to permit.

The Rs5 export duty adds something like 35p to the landed cost of Indian tea in London, taking it to 132p a kilo, where the realisation on the basis of current auction prices comes to something like 118p a kilo and less for common grades of tea.

A loss of 14p to 15p a kilo can hardly be an incentive for Indian exporters to send more and more tea abroad. As the Tea Board's figures show, India's tea exports in the first half of 1978 are down by 12m kilos. The lack of interest is keeping exporters away from the auctions, with the result that at tea sales all over the country 50 to 60 per cent of the offerings are having to be withdrawn for want of sufficient buyers and adequate prices. One major plantation association has already warned that if this situation continues for a few months more, all healthy gardens are bound to get sick.

The Government is not as yet impressed by the pleadings of the tea producers that the export duty be abolished or suitably modified forthwith if the industry is to be saved. It feels, and also says, that the industry is manipulating auction prices and even export shipments to pressurise New Delhi into abolishing the duty.

The industry has suggested that at least an export ceiling can be announced, a lower one of 200m kilos against the previous year's 225m, but that is something the Government is not willing to do. It would like to be sure of the size of this year's crop first.

What the 1978 crop will be is anybody's guess. Because of unfavourable weather in the north the Indian crop up to June was just 5m kilos less than at the corresponding time last year. But since then weather conditions have greatly improved and rainfall in tea growing areas has been quite adequate. It is most likely that the deficit will be made up and a crop of 550m-560m kilos eventually emerge.

If exports do not go up at least 200m kilos, not only will the country have lost a substantial amount of foreign exchange and part of the established and lucrative market; there would be just too much tea for the domestic market to absorb. That would dangerously depress prices, with ruinous consequences for the financial health of the industry.

What seems so far to have escaped Mr. Mohan Dharia, Minister of Commerce, is that while India's tea exports, particularly to London, have been falling, Britain has not stopped importing from other sources, and thus so some extent obviously at India's expense. Kenya, for one, is exporting a lot more than usual to Britain, and Sri Lanka, though with a smaller crop so far this year, is also gaining markets from India.

Commenting on the decline in Indian exports, and to Britain at a greater rate than to other destinations, the Tea Association of India, representing what may be broadly called non-sterling tea interests, warns: "About 30 per cent of our tea exports go to London, and it is extremely necessary to be cautious in dealing with the London centre. The switch of British blenders from Indian teas to other teas will have a far-reaching effect and it will be difficult to recoup the lost ground." If this really happens or is beginning to happen because of Indian tea's uncompetitiveness at the moment, then not only is the Indian industry losing markets now but clearly its long-term interest is also being harmed.

Farming in Maharashtra.

OUTPUT AND PRICES

	Indian output m Kgs	London auction prices Pence per kg average
1973	471.9	45.7
1974	489.5	60.5
1975	488.1	63.6
1976	512.4	84.9
1977	560	198.00

The committee which the Commerce Minister has appointed to report, among other things, on the wisdom of continuing to send Indian teas for auction in London, has not submitted its findings yet — but it would be very surprising if it found really weighty grounds for ending the London connection. As the president of the Indian Tea Association, Mr. M. Ahmed, has remarked, London sets the trend of the world level of tea prices. "Being the biggest importer of tea," he goes on to explain, "it [London] is watched carefully by other importing countries which pay according to levels existing at London. The last two or three years are classic examples of the sway London holds over world prices. The tea producer had to wait two decades before prices started moving up in London and the moment this happened the rest of the world responded."

Auctions

Whatever the eventual decision the Commerce Minister may take about continued participation in London auctions, India as the world's largest single exporter and biggest producer would have to continue to take a close and active interest in the world tea market, whose barometer happens to be Mincing Lane.

The current policy of regulating exports in the context of a rapidly expanding domestic market, over and above an export duty, amounts in some eyes to a policy of "de-emphasising exports." That may not have been the Minister's intention, but it is very ironical that India, having worked so consistently hard for the expansion of tea markets overseas, is itself restricting exports.

At the same time, it is an active member of the International Tea Promotion Association which will come into being soon, with the specific object of exploring new outlets for the consumption of this beverage. The contradictory attitude of the Indian Government has left producers perplexed.

It can be reasonably argued that domestic consumers cannot be neglected to feed to export markets. It is equally true however that a reasonable level of exports, at least 40 per cent of the total output, has to be maintained to keep the industry in sound financial health. That the current depression of auction prices is entirely due to poor export demand demonstrates this fact vividly.

The big domestic market is important for future planning. In a perspective plan for the industry covering up to the year 2000, a target of 1,200m kg has been set up by the end of this century. Of that target, domestic consumption is scheduled to take 720m kg, exports the rest. It needs to be pointed out, however, that the impressive growth in Indian tea output since 1974 has taken place not because of the expanding domestic market, which absorbs over 300m kgs and is growing by an additional 11m to 12m kgs annually, but under the stimulus of a strong international demand (which is reflected in the auction prices in London). Exports are too vital an aspect of the industry to be treated casually or carelessly.

India's share of the world market has fallen from 45 per cent in 1951 to barely 27 per cent in 1977, but tea has remained a substantial foreign exchange earner. India's share in world exports has not gone down so much absolutely as proportionately because of its failure to win for itself a bigger share of an expanding world market. If its exports are to rise to 480m or 500m kilograms per year by the end of this century, the industry and the Government will have to think out their strategy now.

An aggressive or effective long-term marketing strategy can be worked out with an appropriate organisational structure. Large and efficient groups are needed to provide the professional and go-ahead management that successful export enterprises all over the world require. From this point of view, the Indian Government should help all the sterling tea companies convert themselves into rupee concerns in terms of its Foreign Exchange Regulation Act (FERA), and not let them be harassed by some controversial tax liabilities as the majority of them are at present.

The sterling companies have the financial and managerial resources to be efficient producers and exporters of tea and the Indian tea industry has attained the heights it has largely because of their efforts. India has already achieved the distinction of having the world's highest per hectare yield in the main tea growing areas of the north as well as the south, and this feat has been achieved in the organised plantations run by the sterling companies. Exports apart, the industry now urgently needs much developmental effort by way of extensions, replanting and new planting requiring an investment of at least Rs. 500m per year, without which the industry will begin to decay sooner than most people imagine.

Experts say that a rational reorganisation of the industry to take care of all the emerging financial, managerial and marketing problems of this very important sector should be brought about in the quickest possible time in the interest of tea's long-run growth and prosperity.

P. C. Mahanti

Revised policy for cotton textiles

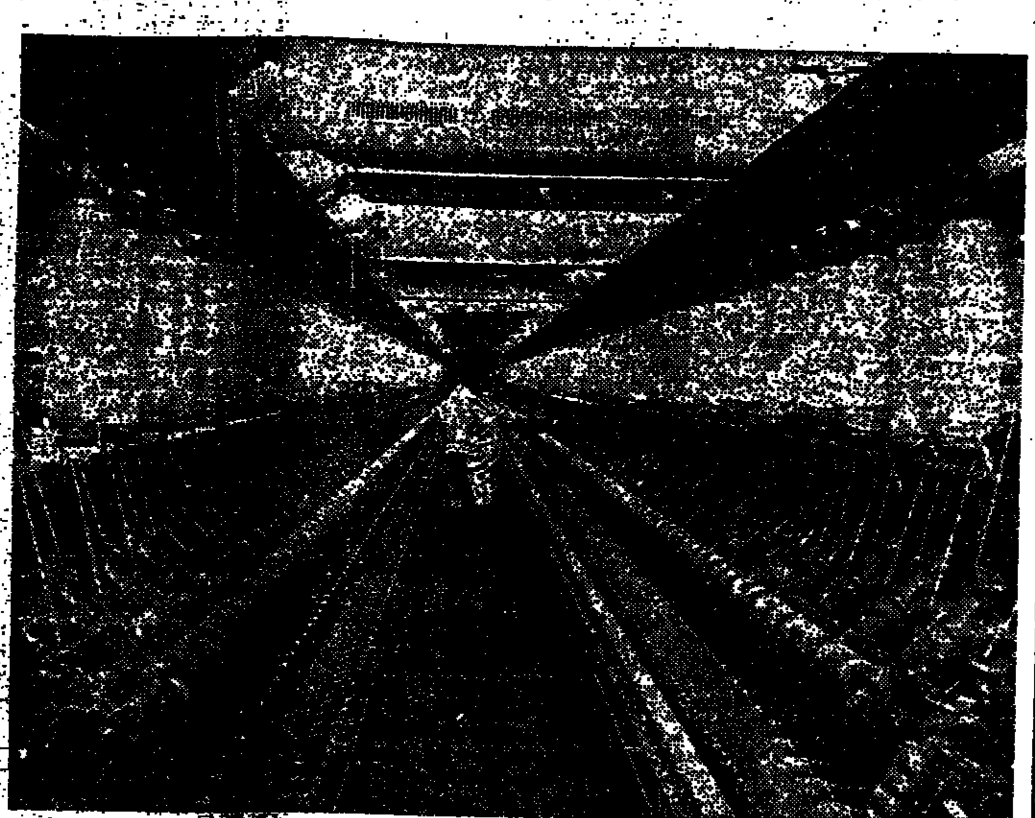
THE COTTON textile industry, the largest single manufacturing sector in the country with a weightage of 12 per cent in the industrial production index, has been going through so many ups and downs that it does not really know how to react to the announcement by the Government of the first integrated textile policy. Its spokesmen have publicly described the policy as "realistic" and "pragmatic." But this is an initial reaction stemming largely from the fact that the mills are freed of the *obligation* to produce what is called "controlled cloth." They have long been blaming this uneconomical obligation for their ailments since they have to earmark substantial capacity to produce low-priced cloth meant for the poorer sections of the population.

This requirement will be lifted from October 1 next. Since the mills have been insisting that compulsory production of such cheaply-priced cloth is the principal reason for the textile industry's troubles, they are obviously surprised by the apparent willingness with which the Government has let them off the hook. Some sense there is a catch which they think the industry will quickly realise. In making the announcement—which relates to the "organised" sector, i.e., the large mills—Minister for Industry George Fernandes has indicated that the "financial burden" involved in the new scheme envisaged in the policy would be borne by the entire textile industry.

The implications of this unspelt "financial burden" have not yet filtered through. Privately, representatives of the mills are worried about this since the fear is that some kind of new levy will be imposed on the industry. Mr. Fernandes has said that the handloom sector is to be encouraged and will eventually take on together with the public sector National Textile Corporation (NTC) which runs 103 nationalised mills, the responsibility of clothing the poorer sections of the population.

Since subsidies are now to come to an end and the Government has said that "there will be no burden on the Exchequer," some scheme appears to be in the offing that will force the "organised sector to assume the financial burden." Private textile mill owners fear, although they have still to make their apprehensions public, that what the Government has given them with one hand it will take away with the other—and possibly add to their troubles.

There is universal acknowledgment that the "organised" sector is in trouble. There are at present more than 700 mills, 412 spinning units and 290 composite mills. They have an installed capacity of nearly 20m spindles and 208,000 looms. Production of yarn and cloth has remained static for two years. For some years now mills have faced high production costs and slack markets. It is only in the past few months that demand has improved sufficiently for millowners to start thinking about plans for much needed re-organisation, modernisation and expansion—an indication that the industrial production as a whole is finally picking up.



The Adamji textile mills.

The incidence of "sickness" is the highest in the textile industry. Apart from the 103 "sick" mills taken over by the NTC, more than 30 are at present closed. Efforts are being made to re-open them, largely by offering "soft loans" for modernisation of obsolete plants, but the Government has decided not to take over any more of the "sick". The NTC's losses have been reduced in the past year but its performance continues to be a major drag on the public sector as a whole.

Capacity

The NTC mills together have an installed capacity of 2.9m spindles and about 44,000 looms, which is 15 per cent of the spinning capacity and 20 per cent of the weaving capacity of the whole industry. Under the new integrated textile policy the NTC has been given a key role. It will produce a major part of the 400m square metres of "controlled cloth" which is to be the maximum limit for the mill sector. Private sector mills will have to bid for production of the remaining amount that the corporation cannot take care of.

This is a puzzling part of the new policy. Since the private mills were seeking to be rid of the obligation of producing uneconomical "controlled cloth," their owners are now wondering why they will be expected to make competitive bids for weaving this variety, especially as they will be required to sell it at a price not exceeding the cost at which similar cloth is manufactured by the NTC mills.

At any rate, in keeping with the Janata Party's commitments, there will be no further increase in the weaving capacity of the "organised" sector. This means that the capacity of the large mills will be frozen at existing levels. Expansion will be permitted only if modernisation programmes require it. This could be substantial since the bulk of the mills need fresh plant and equipment, but any increase will inevitably be phased over a long period since finance is still a constraint and the "soft loan" scheme is getting off the ground slowly. Nor are power looms to be allowed to increase. This ban is to be given statutory force and the large number of unauthorised power looms will be recognised only on payment of a "deterrent penalty."

Hand looms thus get pride of place in the new policy mainly because promotion of their interests conforms with the ruling party's commitment to encourage job-creating industrial units. Hence the decision for "rapid development of the decentralised sector, including hand looms, *khadi* (home-spun cloth), and the maximisation of employment thereby." After phasing out of mill-made "controlled cloth," subsidies will be allowed only for hand loom and *khadi* cloth. Massive incentives are planned for hand looms. Spindle capacity is to be reserved to meet their yarn needs, certain items of production earmarked for them, and they will cater almost exclusively for the poorer classes.

If the policy works, the mills will from now on produce mainly the more expensive varieties and export products. However, they may well find the Government has left them to fend for themselves, and despite the welcome given to the new textile policy they might find it will boomerang on them.

Much depends of course on the success with which the handloom sector is promoted. There are some serious question marks about this since implementation of the policy of promoting the "decentralised" sector will need extension of specialised administrative machinery and supervision on a broadly-based level and this will not be easy.

The Government has gained some experience of schemes to promote handlooms. At present there are in operation 21 "Intensive handloom development schemes" formulated and implemented by the State Governments under an agreed pattern of financing by the Central and State governments. Each of the projects is expected to cover 10,000 handlooms over a period of five years and is being implemented in 18 states.

Early reports on the functioning of the projects say that around 40,000 looms have so far been launched, although as most handlooms in the country are worked by co-operatives, the new projects are obviously experimental. If the enormous unemployment in rural areas is to be effectively tackled, the projects will have to be implemented more speedily. Until then production of textiles will be mainly in the "organised" sector and its problems cannot be ignored.

Controls

The mills have complained in the past that price controls were the main reasons for their troubles since they were not compensated for their losses. The new textile policy seems to have done away with this by removing the obligation, but much will depend on what the new "burdens" imposed on the mills and the entire textile industry are. The industry as a whole is at present shaky because since 1975 its finances have suffered from the recession—which is just showing signs of ending.

The "soft loan" scheme introduced to encourage the mills to modernise has not so far been successful since the industry is uncertain about its future and individual units have been reluctant to make new investments. And many applications for loans from the Industrial Development Bank of India (IDBI) were rejected. By the end of 1977 IDBI had received 183 applications for "soft" loans totalling Rs 3.61bn, of which 40 for Rs 896m were rejected or withdrawn. Of the balance only 54 applications for loans totalling Rs 401m were sanctioned.

Cotton availability and its widely fluctuating prices are other problems. Recently the Government made it compulsory for the mills to use at least 10 per cent of non-cotton fibres, imports of which have been made in substantial quantities. This has helped to diversify and broaden the raw material base of the industry. The public sector Cotton Corporation of India has been asked to operate a buffer stock to be created through surpluses in good production years supplemented by imports when necessary—a part of the new policy that the industry is watching warily.

K.K.S.

Scope in finished leather goods

DEVELOPMENT OF the leather industry provides an important test of the Indian Government's ability to exploit indigenous resources and encourage small-scale entrepreneurs in a sector which has great export potential.

India has huge resources of hides and skins. About 1m people are employed in the leather and leather goods industry; of these about 85 per cent are in footwear and leather goods and the remainder in tanning and finishing.

In recent years policies have been aimed at curbing the exports of hides and semi-finished leather in favour of finished goods, but there are great organisational problems involved in this shift. The tanners are primarily concentrated around Madras and to a lesser extent near Calcutta and they have traditionally exported much of their semi-finished hides directly, especially to Western Europe. The manufacturers of footwear and other finished goods are concentrated around Kanpur, Agra, Bombay and Calcutta; most of these are small or cottage industries, using local suppliers of leather. There are a small number of large-scale shoe manufacturers, including BATA, but they account for only about 18m out of the 220m pairs of leather shoes produced every year.

Curbs on exports of semi-finished leather have caused problems for the tanners, who have found it difficult to make the switch to producing finished leather; they have also caused irritation and inconvenience to overseas customers. The principle of moving to products of higher added value is clearly right, but the use of export quotas and controls has been costly and disruptive.

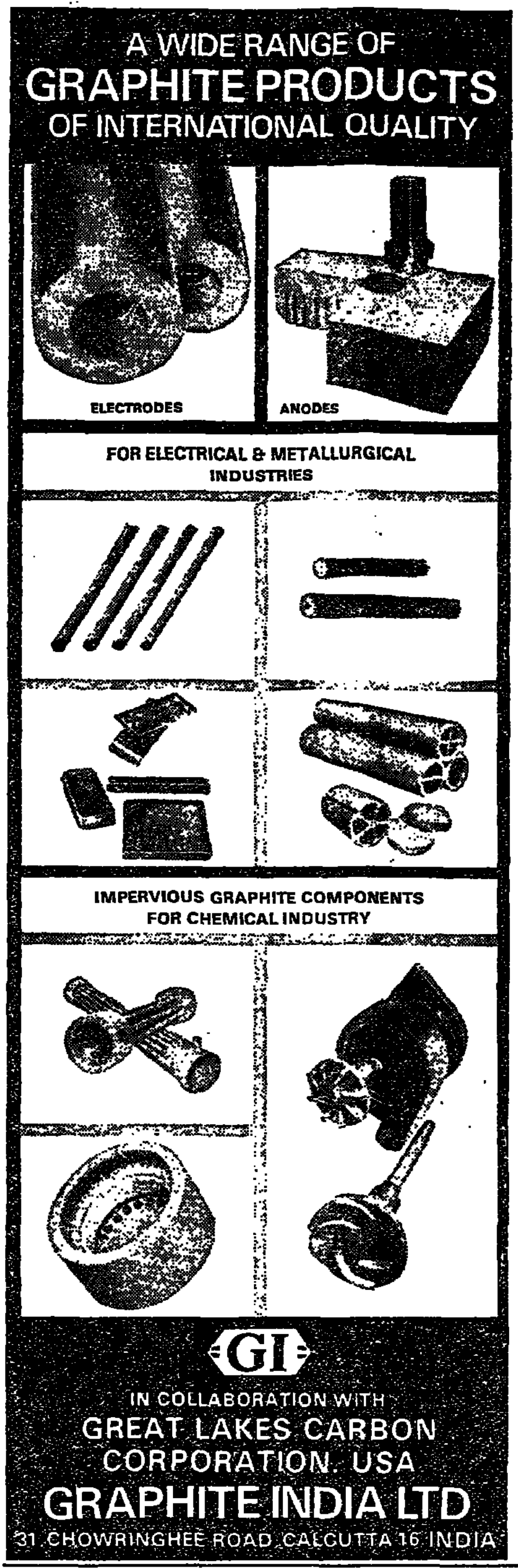
In 1976 an "apex body" was set up, the Bharat Leather Corporation in Agra, to act as a catalyst for the growth of the leather industry either through its own efforts or by working with the State Leather Development Corporations. The aims are to achieve a sustained and co-ordinated growth in the industry, with specific reference to the small-scale sector, and to ensure that this growth yields additional incomes to the artisans and craftsmen engaged in the lowest rungs of the industry. There are major cultural problems involved in improving the quality of cow hides, most of which are recovered from fallen animals by members of the lowest castes. It is at this stage in the tanning process that improvements in organisation and technology are badly needed.

The short-term plans include the establishment of a machinery and materials "bank" as well as help in the procurement of chemicals, dyes and machinery. There are also plans for "common facility centres" to assist the smaller tanner to get his semi-finished hides and skins converted into finished leather and to provide marketing assistance. Import duties on leather processing machinery have been reduced.

Quite apart from the internal organisation of the industry, much depends on the ability to develop and maintain links with overseas customers. This will require close collaboration with foreign manufacturers of finished leather goods. There will probably be a need to concentrate the export effort on standard rather than high-fashion lines. All this will require inter-action between the Government's advisory bodies, the local tanners and cobblers and the large companies whose manufacturing and marketing know-how could be used to greater effect.

If these problems can be overcome, the leather industry should be able to increase its exports by at least 75 per cent per annum over the next few years and contribute significantly to the Government's objectives of small-scale industrial development and employment creation.

G.O.



Jute's tough struggle

THE INDIAN jute industry has a special place in India's developing economy — as a major foreign exchange earner and employer of at least 2m people, directly and indirectly. The unfortunate fact about this industry however is that it is peculiarly crisis-prone. It is hard to think of a time in recent history when the jute industry was not going through one crisis or another. It was either a crisis of the market due to sharper competition from Bangladesh and U.S. and Western synthetics, or disruptions caused to production by industrial action; or a critical raw materials shortage; or difficulties about getting enough electricity; and all these came — as they still do — in a regular cycle.

Even the splendid break for India that came after the OPEC action to quadruple oil prices, which made rival synthetic uncompetitive overnight, and the emasculation of the Bangladesh jute industry in the wake of its civil war, lasted only about 18 months. The U.S. synthetics industry shook off the effects of the oil crisis fairly quickly and found a way of making its products again cheaply, relative to the landed cost of Indian jute goods at any rate. Then came the U.S. economic recession with housing activity reaching an all-time low, which drastically reduced the demand for Indian carpetbacking, the jute industry's most lucrative item. Since then the industry has been through several ups and downs, but an atmosphere of crisis has always been there.

At the moment seven mills remain closed due to serious problems of working capital, and five have been taken over by the Government. There is a look of "sickness" about the industry as a whole. It needs stressing however, that it is due to circumstances largely outside the jute industry's control. For instance, barring a few resourceful units, the rest of the industry has suffered from a crippling financial situation due to years of low return, so sufficient resources have not been available for modernisation or diversification to increase efficiency or to expand markets.

Secondly, being a highly labour-intensive industry, managements have to devote a considerable part of their energy to tackle labour problems. Wages form as high a proportion of the industry's net sales as 30 per cent (the Indian Jute Mills Association's figures) and the industry can survive only when there is freedom from labour disputes. In industry as a whole, according to a Reserve Bank study, wages work out to only 16.01 per cent, which just shows how productivity is particularly important in jute. However, productivity in the jute industry is often not good.

At the moment jute workers *are seeking a new wage agreement*—the old agreement expired a few months ago—and predictably, there is a demand for substantially higher wages, house rent allowance and other benefits which the industry's *present financial capacity* just will not be able to meet. Consequently, the management's response has been cautious, while an indefinite strike has been threatened. The confrontation may well lead to some *unrest in the industry* in the near future.

Minimum

Thirdly, there is the all important problem of getting an adequate supply of raw jute at a reasonable price. Raw jute accounts for roughly 60 per cent of the industry's costs—so the profitability of the industry depends always on the price at which it is able to get its raw material. To protect the interests of millions of growers, the Government has been following a policy of price support—the instrument of enforcing this policy is an official organisation called the *Jute Corporation* of India—but during the past year at least the Corporation has not had much to do.

Due to a small crop of 6.8m bales the ruling market price has stayed way above the support minimum announced by the Government—in fact, such was the runaway tendency in raw material prices that at one time the Jute Commissioner felt obliged to fix a ceiling of Rs 181 per quintal. This was in addition to limiting mill stocks to a bare four weeks' consumption. Yet this ceiling has not stopped prices rising to as high as Rs 290 to 300 a quintal. There is a black market with very little jute available on the open market. Consequently, in a year when export demand for jute goods has been reasonably satisfactory, production of jute goods in 1977-78 declined to 1.17m tonnes from 1.18m tonnes the previous year.

The 1978-79 crop (crop season or year July-June) is now estimated at 7.5m bales. It is a normal crop but this will still mean a hand-to-mouth existence for the mills throughout this year as the carry-over from the previous season's stock is the lowest on record. This means that the crop prices will remain much above the statutory support price of Rs 150 a quintal or even above the ceiling price of Rs 181 a quintal. The mills are worried that due to increasing competition from synthetics in the U.S. and withdrawal of subsidy on hessian (these constitute 50 per cent of India's jute goods exports) they will not be able to contain their costs or keep up their exports.

Most of the acreage under jute went to Bangladesh (formerly East Pakistan) with the partition, but India made it up by expanding her own acreage, and attained self-sufficiency in a remarkably short time. Not much attention has been paid to the quality of fibre grown, and there has been little research put in to develop fine quality raw jute. Not much research work at the international level has been done either, such as has been done, for instance, in the case of cotton, another cash crop from which India could draw many lessons.

The much talked about Jute International organisation which the jute goods producing nations—India, Bangladesh and Nepal—have been considering *setting up* has yet to be formed. The idea of a Jute International was conceived against the background of a growing threat from synthetics against which it was felt that only a combined and concerted effort by the jute goods producers could lead to survival. One vital part of the effort was to be research and development work in the production of high quality fibre. Since it is not certain when and whether this Jute International will be formed, individual producers are still left on their own. Bagladesh which, incidentally, has not been very enthusiastic about the "International," has ambitious plans to expand its jute cultivation, reportedly with World Bank aid, and at the same time it is working to improve its fibre quality which is already very good. With more fibre produced, Bangladesh will expand her jute goods capacity, too, and that will mean a harder competitive struggle for India.

Quality fibre production must be India's priority along with modernisation and renovation of machinery. Realising that the *industry as a whole has not the* means to go in for modernisation and renovation of equipment on an adequate scale, the Government has provided a Rs 2.5bn soft loan facility through one of the public financial institutions, the Industrial Finance Corporation of India from which loans will be given to mills. Indeed, many applications have been made and loans have been sanctioned, but the disbursal has been unaccountably slow. The mills, it is said, have become less enthusiastic mainly because of stiffer competition from Bangladesh and synthetics and due to the discontinuance of export subsidies on hessian and the industry's two promising products, woolpacks and cotton bagging.

Uncertainties

The industry's chronic market uncertainties arise from two factors: its dependence on the U.S. market for 80 per cent of its carpetbacking output (which is roughly 30 per cent of the total output apart from being a most lucrative product) and secondly, on the USSR and East European countries for a large chunk of its hessian output (hessians account for 50 per cent of exports and also 40 per cent of the total production). In the U.S. market, challenge both from synthetics and Bangladesh has been strong, while the USSR also buys from Bangladesh, mostly on commercial considerations, but also on political grounds. The prospect of increasing exports of hessian to West Europe and Japan has not materially reduced India's heavy dependence on the U.S. and Russian markets. For example, in 1977, India's jute goods exports went up by 20 per cent over the previous year because of increased purchase of hessian by Russia and of carpetbacking by the U.S., but in the first half of the current year, the USSR has been buying on a much lower scale and this has depressed hessian prices.

The internal market for jute goods has been expanding much faster than could be visualised only five years ago. This is largely because of *bumper harvests* and rising production in industries like sugar, cement and fertilisers. In 1976 as much as 60 per cent of the output was absorbed in the internal market. In 1977 despite a fairly sharp drop of 1[illegible] per cent in *the domestic supply* the total demand at 661,000 tonnes was still well in excess of 50 per cent out the output. But the domestic market takes mostly low-value products like sacking—while all the high value products like carpetbacking, hessian, woolpacks, cotton bagging and other specialties go abroad. It is these exports which naturally largely determine the industry's viability.

Traditionally an export industry, jute cannot afford to lose these markets without losing its own viability. There is no need to lose the basic character of the industry. The world demand for packaging material has been on the whole growing despite shifts in preferences for particular types of goods. All the exercises done by international bodies like the FAO and the World Bank point to an encouraging future for all packaging materials, of which jute is the cheapest and sturdiest—its strongest sales point. What is really needed is a suitable restructuring of the Indian jute industry through amalgamations and mergers and the introduction of thoroughly professional management in every unit.

The Indian Government recognises that the need has become more urgent than previously. It has just set up a committee through the Jute Manufacturers Development Council (a body consisting of the representatives of the industry and the Government) to prepare within two months or so "an integral plan for restoring the viability of the Indian jute mill industry." The main part of the committee's terms of reference is on short and long-term projections of growth in production of raw jute and jute goods, and of export and domestic sales.

When the committee submits its plan, it will be clearly seen on what lines the industry needs to be reorganised to increase its competitiveness. The Government has acquired something of a base in the industry by taking over five mills which include the largest and most modern mill in the industry and may take over a few more of the seven units which are now closed. Perhaps the intention may be to start a restructuring experiment with these units for the rest of the industry to follow.

P.C.M.


Milling sugar cane.

Sugar mill lobby

THE OFFICIAL policy for the new sugar season beginning in October has generated unusually keen interest. Everyone concerned with sugar—the cane grower, the sugar mills, the trade and the consumer—is watching what the policymakers will do. Whether the controls are lifted in keeping with the Janata Government's policy, or the *status quo* is allowed to continue, the stakes are high. Ironically, the sugar mill industry is lobbying for the *status quo* with a decision to create a buffer stock of 1m tonnes to take the load of accumulated sugar stocks off its back and save it from the crippling burden of interest and godown charges.

SUGAR STOCKS
(m tonnes)

	Output	Carryover from *previous* year	Total *supply on* October 1	*Home con-sumption*	Export	Total offtake	Carryover
1973-74	3.95	0.84	4.79	3.52	0.44	3.96	0.83
1974-75	4.79	0.83	5.62	3.47	0.94	4.41	1.21
1975-76	4.26	1.21	5.47	3.67	0.97	4.64	0.83
1976-77	4.84	0.83	5.67	3.76	0.37	4.11	1.57
1977-78	6.00	1.57	7.57	4.50	0.65	5.15	2.42

On the other *hand* the trade wants decontrol, since a return to the market mechanism will allow it a greater role in distribution. The consumer wants the sugar price to come down. He was fleeced in times of shortage and is now being forced to pay virtually the same high price even when sugar is abundant. Within the Government there are pressure groups representing various sugar interests, the strongest of them being the mills and cane growers. It remains to be seen who will succeed eventually.

The general *impression* until recently was that the farm lobby was strong and the Gov*ernment was therefore expected* to do nothing which would harm their interests. With the fall from the Government of Mr. Charan Singh, an outspoken supporter of farming interests, the balance has tilted and the sugar mill lobby has acquired an edge of the cane growers.

Sugar production reached a record of over 6m tonnes in 1977-78 season but market prices continue to rule at Rs *4,500 per tonne*, considered high by Indian standards. There are two reasons for the prevalence of high prices in a year of record production. First, the Government is following a policy of dual pricing for sugar and releases are controlled so as to keep the market price high. It is lifting 65 per cent of production at a special rate known as "levy" price for supply through the public distribution system *for* the *minimum* needs of the masses. The philosophy of the dual pricing envisages meeting the requirements beyond the minimum from the "free market." The free market price is bound to be more than double the levy price because of the high excise duty on "free sale" sugar and the need to recover subsidy built into the levy sugar price.

Lobby

Secondly, sugar prices in general are kept high to enable the industry to pay a good price for sugar cane and keep the farm lobby happy. Ensuring a *good return on cane is important* politically for many Ministers at the Centre and in the States. As against the statutory price of Rs 85 per quintal Punjab has fixed Rs 120. Sugar factories in the co-operative sector *in* Maharashtra have paid Rs 160.

An offshoot of this policy is the elimination of cyclical fluctuations in cane production and consequently of sugar. Output has rise for three years in succession — *from* 4.26m tonnes in 1975-76 to 4.84m in the following year and to the latest record of over 6m. On the basis of cane seedlings, sugar production in 1978-79 is placed at 6m tonnes.

The industry is at the crossroads of its development. The Government is in a quandary as to how to stimulate demand for sugar within the parameters *of its policy of dual pricing and* controlled releases. Domestic consumption has risen steadily but rather slowly, from 3.47m tonnes in 1974-75 to 3.76m to 4.50m tonnes in the following year, mainly because of in- year, mainly because of increased releases and the consequent drop in the free market price.

The increased releases stirred the hornet's nest and sugar industrialists are up in arms *against the Government for the* larger flow of "free" sale sugar, which pushed down the market to a level considered uneconomic by the industry. The mill industry claims a loss of Rs1bn as a result of the dual *pricing policy this season*.

The dilemma of the Government is how to shoulder the burden of the buffer stock scheme. Already it is facing a problem with exports. Under the International Sugar Agreement India is allotted an export quota of 650,000 tonnes of sugar for 1977-78. It has released so far less than half of that quantity for export through the State Trading Corporation. The releases are so made as to cut the losses.

Of the 300,000 tonnes released, 175,000 tonnes are "levy" sugar, which is made available to the Government with a slender margin, and the *remaining 125,000 tonnes* are "free sale" sugar. The lack of enthusiasm to export on the part of the Government and mills is because of a slump in the world sugar price to as low as *$190* per tonne—almost one third of the domestic market price.

Despite the apparent glut the Government proposes to encourage domestic sugar production. It has exempted from basic excise duty the sugar produced in May-September 1978 in excess of the corresponding period last year. The relief is Rs54 per quintal of "free sale" sugar and Rs9.60 per quintal for levy sugar, working out to an average of *about*Rs25 per quintal. To what extent this relief will encourage the sugar mills to crush more cane in the lean season is a moot point.

Recovery of sugar from cane declines by 1 per cent in April, 1.5 *per* cent in May and 3 per cent in June. The loss for every percentage point decline in sugar content of cane, say sugar industrialists, is Rs23 per quintal.

The industry is watching which way the Government will move. It is prepared to opt for decontrol but on its own terms. A buffer stock has to be established and it should be allowed a free hand to grapple with the new situation. The first step the industry will probably take is to reduce the cane price to a level it considers economic. In view of the limited influence of the farm lobby after Mr. Charan Singh's exit from the Government, a compromise on cane prices cannot be ruled out.

R.C.M.

India has a large and diversified engineering industry parts of which are clearly capable of holding their own in world markets. Some weaknesses in structure persist, stemming from past Government policies, but if greater competition in the domestic market brings about the necessary changes Indian companies will become more formidable in world markets.

Pace-setter in exports

IN THE PAST few years the engineering industries have become the most dynamic element in India's export trade. From less than 2 per cent of the country's exports in the early 1960s, they now account for well over 10 per cent of the total. In the past five years the average rate of growth has been more than 20 per cent a year. Although there has been some slackening over the past nine months most people in the industry believe that the rate of growth can be maintained at around 15-20 per cent a year.

India's share of world trade in engineering goods is still tiny, but Indian companies are now beginning to make a noticeable impact in markets such as the Middle East, Africa and South East Asia. There is an impressive determination to maintain the export momentum. While structural weaknesses exist in parts of the industry, the exposure to international trade through exports and through partial import liberalisation should improve the industry's competitiveness. Engineering companies in the developed countries are now having to take Indian manufacturers more seriously as competitors, as suppliers and as partners in third country projects.

The bulk of the engineering industry is in the hands of the private sector, although there are some important public sector companies in particular fields, such as Bharat Heavy Electricals in power equipment, Hindustan Machine Tools in machine tools, Bharat Earth Movers in construction equipment and Heavy Engineering Corporation in steelworks plant and other heavy machinery; an important role in securing turnkey contracts overseas is played by public sector companies, principally Equipment Projects (India) (EPI) and Projects and Engineering Corporation (PEC).

The public and private sectors have been able to co-exist quite amicably, with a degree of competition between them. In some sectors such as power equipment the competition is tending to increase. BHEL's main business is in turbine generators and in the bigger end of transformers and switchgear, while the private companies have concentrated on the medium and smaller. But the need for additional capacity has caused the Government to allow the private sector to expand into BHEL's markets. Crompton Greaves, for instance, a leading electrical company in which Hawker Siddeley has a 37.5 per cent stake, has just secured a licence to make 400kV transformers.

Importance

An unusual feature of India's engineering exports, compared to those of other developing countries, is the importance of relatively sophisticated products—capital goods like textile and jute machinery and machine tools, trucks and buses, heavy electrical plant, diesel engines and vehicle components. Unlike, say, bicycles (also an important export item), these are not products where India has an obvious comparative advantage. As Indian manufacturers seek to expand their share of world markets, will they be able to hold their own against companies in the developed countries, producing in bigger volume and offering more advanced technology?

Most Indian engineering companies were started with the help of foreign collaboration, either financial or technical or both. In the protected domestic market there was little incentive to keep their designs up to date; expenditure on product development and research, with some exceptions, has tended to be low. The small number of manufacturers which are still controlled by foreign companies have access to the parent company's technology and others have taken steps to negotiate new licences. But as these companies seek to develop their export business there is a greater recognition of the need for in-house research and development.

A case in point is textile machinery. Some valuable contracts have been won in other developing countries; last year's Rs.85m., turnkey contract in Tanzania, won by a consortium of Indian manufacturers, was a notable example. But Indian companies have not adopted the modern system of open-end spinning and it will be some years before the industry is in a position to absorb the latest technology. Potential customers, even in the developing world, may be reluctant to commit themselves to obsolete machinery.

There is anxiety among the Indian manufacturers that progress in exports could be held back unless they bring their designs and their production technology up to date. Since few have the scale of operations or the financial resources to undertake large R and D programmes of their own, attempts are being made to work out a co-operative approach to development.

The problem of fragmentation occurs in several sectors, partly as a result of Government industrial policy. The licensing rules have led to an excessive number of small-scale producers, while the fear of monopoly has sometimes prevented the larger companies from achieving full economies of scale.

In some fields the Indian market is too small to permit manufacture on an internationally competitive scale. In heavy earthmoving equipment, for instance, Bharat Earth Movers, a successful public sector enterprise, is producing 150 machines a year, with output expected to rise in a few years to 350; this is a fraction of the volumes achieved by Komatsu in Japan or Caterpillar in the U.S. and Europe.

Yet these disadvantages can be offset to some extent by low labour costs. It is remarkable how competitive some Indian companies can be even in an industry like tractors, where there is strong competition from large multi-national groups. Those companies that have been able to supplement their labour-cost advantage with efficient production methods are able to export successfully and profitably, even though their scale of production may be small by international standards.

There are Indian engineering factories which have achieved levels of productivity comparable to the best in Europe. One example is the TELCO commercial vehicle plant, originally built in collaboration with West Germany's Daimler-Benz. Another is the vehicle component plant of MICO, a Bosch subsidiary based at Bangalore which employs over 9,000 and exports nearly 40 per cent of its production.

If an efficient Indian company can get within 5 per cent of a European or American rival's technology, it is likely to find a ready market. The last 5 per cent of sophistication can add disproportionately to the purchase price and many customers do not need it.

Where cost can be especially important is in bidding for overseas projects. Success depends not only on the price and performance of the hardware, but on the costs of the labour, both unskilled and skilled, needed for installing and maintaining the equipment. Project-based exports, especially to the Middle East, South-East Asia and Africa, have played a big part in the growth of Indian engineering exports and should continue to do so.

The textile machinery deal in Tanzania, involving such companies as Star Textile Engineering and Texmaco, is one example. Larsen and Toubro has supplied equipment for fertiliser projects and other plants overseas. EMC won a contract to instal a 132 kV overhead transmission line in Dubai, in association with Projects and Equipment Corporation. Walchandnagar Industries has supplied a complete sugar plant to Tanzania.

Among the public sector companies BHEL has won power station contracts in the Middle East and there are prospects of substantial business in Libya, a country with which India has close commercial relations. EPI has built a large township in Kuwait which has brought in considerable orders for other Indian engineering companies.

In opening up new markets Indian companies have had two special problems—credibility and finance. They have had to convince the buyer—and more important the consulting engineers who advise him—that Indian standards of workmanship and quality are acceptable and that they are not simply competing on the basis of cheap labour. If that hurdle can be overcome—by showing plants in operation in India and elsewhere—the entry of a new competitor is often welcomed, especially by those who feel they have been overcharged over the years by Western contractors.

The Indians have been able to demonstrate that it is not only the South Koreans who are capable of carrying out complex engineering projects cheaply and reliably.

The financial problem is more difficult. Several bids have been lost as a result of what the Indians regard as uncommercial offers of cheap credit. There is pressure on the Government to create an Export Import Bank which would concentrate in one body the various forms of financial support now available from a variety of public sector institutions.

In contracting and in exports generally the objective must be to exploit India's strengths. Some foreign companies with subsidiaries in India, such as Siemens and Krupps, are willing to use India as the source for certain machines and components which can be more economically manufactured there. Similarly Indian companies with a minority foreign participation can often persuade their foreign associate to use the Indian plant as part of a worldwide sourcing system; for example Mahindra and Mahindra, which makes jeeps and tractors, uses its associations with American Motors and International Harvester in this way.

Some companies have made arrangements to manufacture certain items for British and other foreign companies, for sale under the latter's brand name. For example, companies in the Kirloskar group make pumps, welding sets and machine tools for British manufacturers; other arrangements are under negotiation. Several companies are seeking collaboration with foreign firms on the basis of a division of work, with those parts of the contract most suitable for India to be handled in India. For example, Stewarts and Lloyds of India (now controlled by British Steel Corporation, but the foreign share of the equity will go down to 40 per cent) is the leading pipework engineering company in India. The local management is planning to co-operate with overseas partners, including BSC, in pipework projects; its prices will be especially competitive in the Middle East and South East Asia. In power equipment BHEL has collaborated in some recent bids not only with KWU, but also with GEC of the UK and General Electric of the U.S.

The impetus to export has come in part from the recession in domestic demand for capital goods, but most of the leading companies are determined to stay in the international market. BHEL, for instance, expects its exports next year will exceed 20 per cent of its turnover. "Exports are essential to the health of the business," a director of BHEL told me.

Clearly Indian companies are more likely to succeed in exports if there is a large, growing and profitable home market for their products and if they are encouraged to expand to take advantage of that growth: a home market/export ratio of roughly 70 : 30 is generally regarded as a reasonable target. At present the range of India's engineering exports, like the industry itself, is probably too diversified and there will be a need to concentrate on the sectors which offer the greatest potential.

G.O.

Joint ventures abroad

ACQUISITION OF what is somewhat vaguely called "appropriate technology" has been the basis of the debate on the subject of technical know-how in India. Having accepted this concept for the country, the Government has found little difficulty in persuading other Third World nations that "appropriate technology" of the same kind is what they need.

What this means, in effect, is that the computerised technology hawked by Western countries is not suitable for the developing nations, which need to create employment opportunities rather than displace labour. The highly sophisticated technology developed by the advanced countries for their own use is not considered to be always "appropriate" for Indian conditions; to take the argument one step further, it is not suitable for countries similarly placed.

India's industrialisation programme began some years before most other Third World countries started thinking along the same lines and research and development accompanied purchase of foreign technology and collaboration arrangements. What emerged from this is an abundance of "intermediate technology" in a number of areas which is suitable for the country. This is being increasingly transferred to Asian and African countries—and there are possibilities of taking it to Latin America also—through the form of joint ventures abroad.

Until recently these were limited to export of capital equipment and the "appropriate" expertise; a new Government regulation now permits Indian entrepreneurs to make financial investments abroad also. This is partly because the country's improved foreign exchange position makes direct investment abroad possible without strain. But mostly it is because experience has shown that countries are wary of companies which are unwilling to take a financial stake in ventures they are associated with. For the sake of uniformity, the Government insists that Indian investment abroad should be a minority share, a stipulation for foreign investment in the country. Indian entrepreneurs have thus to find local partners and this is not always easy.

Investment

But it is expected that such investment will grow, especially since economic co-operation agreements with a large number fo developing countries specifically provide for institutional arrangements for joint ventures.

Such ventures are of recent origin but by the end of 1977 as many as 323 had been approved by the Government. Of these, 135 have already started functioning while another 82 are in various stages of implementation. The process has not been flawless and, mainly during the early 1960s, many of the approved ventures fell by the wayside; by now, 105 joint ventures approved have been abandoned for a variety of reasons. These include lack of experience and inadequate spadework by Indian entrepreneurs which often meant that, for instance, no market survey was organised for the particular product to be made. But the overall progress has been satisfactory.

In the 217 joint ventures either commissioned or being implemented by the end of 1977, the investment involved totalled Rs497m (about £35m) from which earnings in the form of dividends, technology fees, managerial fees and royalty amounted to Rs158m. More important, they led to substantial exports from India both in the form of supply of machinery and equipment (the value of which was converted into equity) and direct exports totalling well over Rs800m.

CONTINUED ON NEXT PAGE

Low priority for shipbuilding

UNDER THE draft 1978-83 plan India hopes to increase the tonnage of its national flag fleet from 5.35m grt to 7.77m grt, but in doing so is unlikely to make more than a strong tilt at the principle of greater self-reliance. The expansion itself aims to maintain rather than increase the proportion — now about 42 per cent—of India's overseas trade carried in "national bottoms." And with India's shipbuilding industry small in relation to its national fleet—less than 10 per cent of the tonnage acquired by India is obtained from Indian yards —most of the extra tonnage must be obtained from the sale and purchase market and from foreign shipyards.

To this end the Government has taken advantage of the country's healthy foreign exchange reserves to make Rs 5bn available for the acquisition elsewhere of 486,000 grt. But *by last month only Rs 2bn had* been taken up. Orders placed at Indian yards are put at some 125,000 grt, while the plan envisages an increase in output from these yards from 66,400 grt in 1977-78 to 238,000 grt in 1982-83. The general picture thus appears less than satisfactory.

For all its growing role as a trading nation India has given surprisingly little priority to its own shipyards, in spite of the jobs that such an "assembly line" activity generates both directly and through ancillary industries. India has nevertheless grown to become the world's twentieth largest shipbuilding country, though it is still well down in the league compared with other Third World shipbuilders like Brazil and South Korea.

Those shipbuilders themselves would like to produce a greater range of vessels and offer speedier delivery. Certainly lead times are high at three years, often because of problems in obtaining marine equipment, which in many instances has to come from abroad because the *local equipment industry (as in* many Third World countries) remains underdeveloped. In one case, said to be typical, a ship was ready to be launched but required an imported anchor chain. For six weeks an asset worth Rs 150m went unused.

Shipbuilding remains a high-cost industry in India, in spite of the cheap skilled labour that is available, simply because it produces a limited number of ships in far from modern shipyards. A greater degree of standardisation is thus also sought, and the Ministry of Shipping has now selected four ship types for the two yards falling within its purview, at Vishakhapatnam and Cochin.

The Cochin yard, India's largest building dock, was designed with the help of Japan's Mitsubishi Heavy Industries and formally went into production in February 1976. But it has yet to complete construction of its first ship, a 75,000 dwt Panamax-type bulk carrier for the Shipping Corporation of India built to a design by Scott Lithgow.

YARDS AND FLEET

	1974		1975		1976		1977	
	Ships	'000 GRT	Ships	'000 GRT	Ships	'000 GRT	Ships	'000 GRT
Order book at end-year	56	173	67	394	60	379	67	441
Completions	6	30	7	41	24	46	11	25
National fleet	451	3,485	471	3,869	526	5,094	566	5,482

Sources: Lloyd's Annual Summary of merchant ships completed; Lloyd's Statistical Tables.

Over the next three to five years capacity is supposed to increase from two to four 75,000 dwt vessels a year.

Hindustan Shipyards, which operates Vishakhapatnam, has built and delivered about 75 vessels in its three-decade history, in recent years producing mostly a Pioneer-class 21,600 dwt vessel built to a West German design. Here too expansion in capacity is planned, from 2½ ships a year to four, and the British consultants Livesey and Henderson have outlined schemes for even greater expansion. The yard is reported to have completed designs for a new series of vessels of various types from 14,000 dwt to 27,000 dwt which use a minimum of imported equipment and standard components.

Apart from avoiding too great a diversification, such standardisation helps shipbuilding orders become more centralised. But order books are lean and capacity utilisation at Vishakhapatnam and Cochin is still as low as 60 per cent. India's two other main shipyards — Mazagaon Docks in Bombay and Garden Reach Shipbuilders in Calcutta, which come under the Ministry of Defence Production —appear to face similar problems, even though they have a ready market in the Indian Navy.

Formerly a shiprepair yard until recently building small naval vessels, tugs, barges, dredgers and so on, Garden Reach is now producing *completely indigenously designed* 26,000 dwt bulk carriers with Indian marine equipment including a marine diesel engine produced at Garden Reach. The import component of these vessels is put at 20 per cent. Garden Reach's Rs1.1bn engine plant, only recently completed, will be able to supply engines to the whole industry, so the country's reliance on imports is expected to fall.

Mazagaon Docks, like Garden Reach formerly a British-owned yard, can also build a range of ships up to 26,000 dwt. Its activity has grown in recent years thanks to a 10-year expansion and modernisation programme, making it now India's leading shipbuilding and ship-repairing yard. The yard has completed a programme of six Leander-class frigates, though it has faced fitting-out setbacks because of delays in engine delivery. Production of the first warship of a new type for the Indian Navy has begun earlier than planned.

Thus although India's shipbuilders will find it difficult to improve substantially on the meagre share they build of the country's national fleet, the prospects are that a growing percentage of the country's requirements in future could be constructed at home. This trend is encouraged by existing Government measures to protect and subsidise the industry.

Under the so-called "pari passu" clause, for example, the Government aims to protect and subsidise the industry same tonnage they acquire abroad, a regulation it is in theory able to enforce because it provides the permit for purchases abroad. In practice the rule is said to be difficult to apply because of local capacity constraints and must remain largely notional. It is regarded, however, as a useful lever for some government arm-twisting.

The real subsidy to India's shipbuilding industry comes from the institution which actually *finances shipping purchases*, the Shipping Development Fund Committee, whose work has probably been responsible for the growth of Indian shipping since independence. The fund provides loans for up to 90 per cent of the cost of a vessel to be purchased abroad, with an interest rate of 4½ per cent to be repaid over 15 years with a moratorium for the first two years.

For purchases from a local yard, however, the terms are easier, being up to 95 per cent with a repayment period of 17 years but carrying the same interest and moratorium period. Loans from the Rs5bn foreign exchange fund earmarked for acquisition of ships abroad were repayable over 12 years, including a two-year moratorium, at 7½ per cent interest.

Beyond this the yards themselves receive Government assistance. Yards are compensated to the tune of ten per cent of international prices for using certain more expensive home-produced components. They receive three per cent of the vessel price under a subsidy which is expected to phase out in the next few years. A rebate is available under which a proportion of profits is not taxed if it is ploughed back into development.

For all the problems facing the industry worldwide and the obvious difficulties at home, India is seriously considering the construction of two more shipyards, at Paradip in the State of Orissa and Hazira in Gujarat. Detailed project reports have already been commissioned and global tenders invited for the yards, which would be expected to build ships in the 30-60,000 dwt range.

No decision has yet been taken on whether there will be one or two yards, however. The Shipping Ministry appears to believe there should be two, the Planning Commission is thought to prefer one. Certainly the *demand for ships in India over* the coming years is only one factor for being taken into account in the matter, which is as political in India as it would be in any other country.

According to a report produced earlier this year by a committee of the National Shipping Board, the setting up of additional shipyards is a "socio-economic need" rather than a purely commercial proposition. Apart from increasing the country's self-reliance, it says, it would create jobs directly and generate employment in ancillary industries, ensure fuller utilisation in steel plants and encourage an Indian market for shipping spares.

Costs

But much obviously depends on whether overall costs can be brought down to make purchases from Indian yards more attractive, and that is contingent upon orders being won and greater standardisation achieved. The report says shipbuilding should be regarded as *an export-oriented industry* to enable it to save in taxes, and suggests that concessions be given on excise duty for the raw materials used.

Senior officials at Indian shipyards complain strongly about the unfairness of the tax system and would welcome such a change. They also agree on the need for greater standardisation, pointing to the achievements of Hyundai in South Korea in this respect, though it is also admitted rather enviously that South Korea benefits from *having more modern yards and* a well-disciplined labour force.

It is difficult to know whether the Government will finally commit itself to building two new yards in India when the spare capacity abroad shows no real signs of diminishing. The Finance Ministry still has to make its views known. But as one Indian official says, shipbuilding policy need not be either economic or rational.

C.S.

Ventures

CONTINUED FROM PREVIOUS PAGE

However, considering the number of ventures involved the gain so far has been mainly in gaining a toehold in the countries concerned and establishing a base there.

Now that direct financial investment is permitted, the share of Indian foreign investment in manufacturing abroad is bound to increase since the larger industrial houses are being encouraged to invest surplus funds abroad. Many of them have already taken the initiative in this respect. Tata, for instance, has gone as far as the Caribbean in proposing a plant for assembly and eventual production of heavy commercial vehicles.

Technological collaboration agreements alone—with such countries as Iran, Argentina and Zambia—have led to the earning of fees of over Rs11m until last year and these are *certain to increase*. The rate of return from the viable joint ventures has been calculated at around 9 per cent of the capital employed; this compares favourably with foreign minority shareholding companies operating in India.

Earnings and income are possibly the least of the benefits that have accrued to India, especially as Indian entrepreneurs are being encouraged to plough back profits to expand successful joint ventures (making sure that they remain *minority partners*). More important, joint ventures have led to an increase in export of capital goods machinery, spares, construction materials and technology and have improved prospects of further exports of these items. They have widened the host country's knowledge of India's industrial capabilities.

From this has emerged an image of a benevolent Third World collaborating country whose Government is not only actively promoting joint ventures as a form of mutually profitable development but is also keeping a close watch on the behaviour of Indian entrepreneurs to ensure that they do *not function in a manner detrimental* to the interests of the recipient country. The ventures have given an opportunity to establish bases for gathering first-hand market information. Of major importance is that they have forced Indian entrepreneurs to compete with foreign counterparts. This has made them cost conscious and compelled them to improve the efficiency of their own undertakings in India.

The scope for expansion is vast. So far more than 60 per cent of the machinery exported *to launch the joint ventures is* for such well-established areas in India as textile, sugar, cement, chemicals and paper machinery (textiles head the list with 23 projects in as many countries). More sophisticated items like electric motors, transformers, switchgear equipment and related engineering products account for about 25 per cent of the exports for setting up joint ventures. But surveys have revealed that prospects are bright for Indian entrepreneurs in areas like leather, PVC, vegetable oil, pharmaceuticals, diesel engines, light engineering goods, electric fans, radio sets, sewing machines, automobile ancillaries, rubber goods, steel products, electrical equipment, bicycles and other consumer durables that most developing countries currently import from the West at considerable cost.

Feelers have come from countries like Argentina, Brazil, Iraq, the United Arab Emirates and Kuwait for setting up joint projects for manufacture of nuclear reactors, mining equipment, construction materials, cement, diesel engines and the like.

For obvious reasons the location of most joint ventures is in countries either near India or in the same region since geography gives the country an advantage in the Indian Ocean area. The concentration is in Asia and Africa, although the trend in the 1960s to invest in Ethiopia, Kenya and Nigeria and Ghana has been reversed and Indian entrepreneurs are looking increasingly to the Middle East and South-East Asia.

Favoured

Malaysia is easily the most favoured and accounts for as many as 58 projects approved by the Government (although 10 of these have already been abandoned). For the past decade, opportunities have been seized in Indonesia, the Philippines, Thailand, Sri Lanka and Singapore and in recent years a vigorous drive has been made to start projects in the Middle East, although the successful achievements here have been mainly projects set up either on a turnkey basis or on a partnership basis with consortia working for local parties.

That Indians, and their Government, have learnt from experience is apparent from the fact that recently promoted joint ventures have not failed. Yet the abandoning of as many as 105 projects mainly in the initial stages caused concern and an analysis made of the reasons for their failure has helped in making new ventures viable. Finding the right local partner is the main handicap but changes in the attitude of foreign Governments, especially in Africa, are also responsible for the hesitant start made by Indian entrepreneurs initially. They have also been held back by the Indian Government and its mesh of procedural hurdles which are only now in the process of being dismantled (permission to make financial investments abroad is a notable example).

Among the points that Indian entrepreneurs hope to establish is that the Government should not insist on purchase of capital equipment from this country alone, and orders will increasingly be made on a global basis. A beginning is being made with India and Western countries starting ventures jointly in third countries. This provision is also finding its way into economic co-operation agreements and is intended to benefit both private investors and public sector units, the latter in countries where the Government has dominant role in the economy.

Rules for foreign investment abroad are being scrutinised and relaxations are expected. With this there should be a surge in Indian investment in other countries with a preference for "appropriate technology" of the kind that has been developed and is being used in India.

K.K.S.

Cars at the crossroads

O STAND in a Bombay traffic ...m, to spend over an hour ...riving a dozen miles to a ...ctory in Calcutta or to career ...rough Delhi in a taxi, is to ...arn first hand that India is ...robably past deciding ...hether or not it wants the ...r.

The Government may insist ...at cars are a luxury for the ...w, and compelling statistics ...ay confirm a low level of car ...wnership in the country at ...rge. Past reluctance to intro...ce new models, a vast ...umber of scooters and enor...ous demand for bicycles may ...so suggest that the Janata ...overnment's "small is ...eautiful" economic strategy ...s already arrived when it ...mes to cars.

But the industry has reached ...turning point, and the Govern...ent is having difficulty in not ...coming more involved in its ...velopment in the way that ...ost industrialised countries ...ve done. Indeed, what form ...at involvement will take is ...day's burning issue in India's ...r industry.

The country has four manu...cturers, but only two of any ...al consequence: Hindustan ...otors, based in Calcutta and ...roducing the Ambassador (the ...d Morris Oxford), and ...emier Automobiles in ...ombay, which produces the ...emier (a Fiat). Both are ...ivate sector companies in ...ich the Government effec...ely owns a 30-40 per cent ...are through its banks and ...nding agencies. Both are at ...point where they cannot go ...as they have in the past.

The problems can be put ...ite simply. The bodies are ...oduced using old dies—lead...g to too many rejects and too ...ch spotwelding—and cannot ...made sufficiently rust-proof. ...e engines are out of date, un...liable, costly to maintain and ...e too much fuel. Cars coming ... the assembly line at ...ndustan Motors barely reach ...on General Motors index of ...ality (maximum possible: ...), whereas West German ...d U.S. plants regularly top ...0 or even 130.

Taxes and duties, meanwhile, ...sh car prices up to 50 per ...nt higher than the already ...h levels caused by limited production. The Ambassador is priced at Rs 39,000 (about £2,500) at the factory gate, putting it beyond the reach of all but a tiny minority of India's large population.

Output is still too low, however. Both vehicles are in heavy demand, even though makers, dealers and customers are heartily sick of the same old models. Demand shot up last year following a Rs 5,000 price cut, and more cars would have been sold but for a components shortage and labour troubles.

While the leading world manufacturers produce more than 1m vehicles a year, annual output at Hindustan Motors only exceeded 25,000 units in the early 1970s, and actually slumped to a dismal 9,400 after the oil crisis—the company's heavy engineering activities had to see it through. Only now has it clambered back to the 20,000 mark: capacity is 36,000. Premier is producing at its limit of 18,000 units.

Shortage

As a result, customers have gone begging, dealers are known to have done as well as ever out of the shortage—yet another cause for complaint from the producers — and the manufacturers feel they have been restrained in their production long enough. In their view, too many opportunities are being lost, and a new era should begin.

The novel development is that the Government itself is said to agree, and to be considering three options for modernising the industry and bringing in a new model. The first is to nationalise the whole industry, an option which has some political pressure behind it. In prevailing circumstances the move would also satisfy those demanding some firm action from the Government.

This possibility is thought unlikely, however, as is a second option, building a 100,000-unit public sector plant making a new car. Quite apart from conflicting with old pronouncements about cars being a luxury—a contention manufacturers rejected as inconsistent while price control continued (up to 1976) and still dispute—the disastrous precedent set by the Maruti project of Mr. Sanjay Gandhi is enough to cast grave doubts on the whole idea.

With Government resources so limited the suggestion might not get past the Planning Commission and the Finance Ministry in any case. In addition the consequences such a plant would have for the existing factories in Calcutta and Bombay would be little short of catastrophic, and mean a loss of jobs that would be unacceptable to the state governments, let alone the national Government.

This leaves the third (and most recently canvassed) possibility for modernising the industry, namely that an "apex organisation" be created in the public sector which would be the sole importer of the necessary foreign technology, somehow doing what the car companies themselves allegedly could not do even if they pooled their revenues. The idea is reported to have been advanced in light of a Government decision not to allow individual manufacturers to import technology on their own because the duplication would be too costly.

For their part, the manufacturers say they want taxes and duties reduced and the price of petrol cut. But it is unclear whether they could then satisfy the even greater domestic demand which would undoubtedly result. Much would depend on what plant capacity the Government was prepared to license. Moreover, only with the right prices and profits regime might the resources be generated for expansion and modernisation.

In the view of Mr. P. N. Vencaatesan, Premier's managing director, the best thing for Premier would be to expand production in stages, changing the look of the car and, in time, improving the engine. The cost of a whole plant for a completely new car, it is felt, is simply too great.

This sort of incremental change is something Hindustan Motors is seriously contemplating. The company already has the capacity to expand well beyond present levels, and is now considering various possibilities for changing the Ambassador model. Negotiations were said to have reached an advanced stage to purchase Morris Marina dies from British Leyland, as it then was, before its recent reorganisation helped stall progress. The company is also considering a Vauxhall body.

Discussions have taken place with BL, General Motors and others. One possibility is to introduce the Marina body, together with the van and pick-up derivatives, and to dieselise the 1498 engine. This proposal is believed to be favoured by Hindustan Motors and could bring some useful business to BL, but progress towards implementation appears to have slowed.

Although Government plans for the car sector are much the most topical issue in the industry today, policy in the past has tended to give cars less priority than two- and three-wheelers, scooters and motorcycles. The country has a large number of scooter manufacturers but only four have integrated facilities—the rest are their licensees.

The pace-setter in the scooter market is Bajaj Motors. India is the second largest producer of scooters in the world after Italy—one of the few engineering products for which it can make such a claim — and Bajaj produces over two-thirds of them, of which about a fifth are exported.

I head, Mr. Rahul Bajaj, has operated independently of his former Italian collaborators Piaggio since 1971. His company alone of the four main scooter manufacturers in India faces a demand in excess of supply and a long delivery period and waiting list. He is emphatic that a succesful company must base its long-term plans on a home market rather than export hopes.

Production of motor-cycles by India's four main manufacturers has grown over the past decade from 23,000 to a peak of 73,000 in 1976 before tailing off a little last year. As with scooters, the technology needs upgrading—but future demand looks less assured.

The industry as a whole now wants flexibility to shift production between cars and commercial vehicles and to change models, which means a greater use of imported technology. Beyond this, the industry wants a new outlook from the government on the function of the passenger car in national development, in which it is seen as an item necessary for production rather than an item of consumption.

Action on road development is also sought. Although the draft plan emphasises rural growth and the importance of rural roads, the industry believes a bigger plan for construction and improvement is necessary. The share of road traffic in both carriage of goods and transport of passengers has increased in past years, and seems likely to improve further if production is to become decentralised and backward areas are to develop.

C.S.

VEHICLE OUTPUT

	Installed capacity 1977	Production in 1977	1976	1975	1970
Commercial vehicles:					
Telco	27,000	23,545	26,444	25,269	24,463
Ashuk Leyland	10,000	7,863	9,340	7,513	5,263
Passenger vehicles:					
Hindustan Motors...	36,000	20,401	16,537	9,444	23,325
Premier Autombils.	18,000	17,594	15,009	13,683	12,054
Scooters:					
Bajaj (Vespa)	100,000	83,199	80,988	60,745	32,091
	*30,000	†24,325	†4,975		
SIL	100,000	16,489	28,054	10,595	—
		*16,278			
API (Lambretta) ...	39,000	21,610	32,986	29,754	25,335
Motorcycles:					
EIL (Enfield)	—	10,894	17,872	18,863	10,215
EL (Rajdoot)	—	29,623	25,728	23,975	16,500

* Additional packs. † Additional export packs.

More commercial vehicles

INDIA'S TRADITIONAL reliance upon the railway system to move passengers and goods has begun to moderate in recent years. Road transport has substantially increased its share in the carriage of goods, particularly for short-haul business, and has slowly improved its share of all passenger traffic to just under half. This overall shift should continue if more attention is given to improving and extending the road network.

The trend has buttressed the underlying emphasis in government road transport policy of giving greater priority to commercial vehicles than to scooters or cars. Planned production of commercial vehicles began in 1953, and now two companies dominate the truck and bus market: the Tata Engineering and Locomotive Company (TELCO) and Ashok Leyland. Both produce diesel-based vehicles, and operate at the heavier end of the market.

TELCO, manufacturing mainly in the 7½-ton range, produced well over three-quarters of the trucks made in India last year. The company has benefited from its original collaboration with Daimler Benz, which still has a 15 per cent holding in TELCO. The country's diesel market was quickly won, and additional demand from a growing export market and from the defence sector has encouraged expansion.

TELCO has managed to built up an integrated system of production, to the point where the company makes its own machine tools, enjoys reasonable economies of scale, ploughs back profits and conducts its own research and development.

The company has just opened a 9,000-12,000-unit plant at Poona in Maharashtra on top of its original 27,000-unit plant at Jamshedpur in Bihar, and is thus in a position to take advantage of any upturn in the market. As the company sees it, this plant marks a new era for itself and for an industry which has a pivotal role in the drive for rural development. The Government has asked the company to embark on a further expansion to 50,000 vehicles per year.

In 1977-78 TELCO made pre-tax profits of Rs 104m on turnover of Rs [illegible] and exports rose from Rs 84m to Rs 373m.

The other big commercial vehicle producer is Ashok Leyland, based in Madras, in which BL has a 58 per cent shareholding. This company employs some 6,000 people and, like TELCO, has ambitious plans for expansion. Its licensed capacity stands at 10,000 vehicles a year, mainly the 12-ton Comet truck, and this will be expanded to 15,000 units by 1981. Ashok is seeking approval for a further expansion to 30,000 vehicles a year and this will involve a widening of the product range, probably bringing the company into more direct competition with TELCO.

Ashok has been consistently one of the most successful of BL's overseas investments and the UK parent has few complaints about relations with the Indian Government, which have been constructive and helpful; recently there has been some relaxation of policy on payments for foreign technology, needed to update the product range. There are no expatriates in the company and funds for expansion are generated or raised locally. Levels of efficiency are good and, although it operates in a difficult area for labour relations, it has not been seriously hit by strikes or labour unrest.

Asok exports about 10 per cent of its production and it receives some marketing assistance from BL.

In the industry's judgment supply and demand of commercial vehicles more or less evenly balanced in 1977, but because demand was less than expected —owing to increased costs which eroded road transport's advantage and the slower-than-anticipated growth of the economy—production was below target. Indeed, in the view of TELCO, the industry's whole growth and development has never been anywhere near its potential.

Without explicit government moves to favour road transport or reform taxes, future demand projections are being treated cautiously for heavy and medium vehicles. A more optimistic view is taken for light vehicles as a result of the government's emphasis on rural development and the suitability of light vehicles for transport within cities.

This should help companies like Standard, whose main activity is in the light vehicle sector. Bajaj Tempo and Mahindra & Mahindra are in the field too, and both expect to increase their capacity significantly over the next few years.

The critical factor is likely to remain the economy's capacity to absorb a higher volume of new commercial vehicles, rather than the industry's capacity to produce them. Though this is largely depends on economic growth, the industry also believes that a better dispersal of economic activity would help and so draws encouragement from the Janata government's development strategy.

Beyond this the budding export market offers additional opportunities. Indian trucks and buses have done well abroad, even in countries like Taiwan, South Korea and Malaysia where the competition is strong. They score because of their ruggedness and reliability, especially in markets where overloading and irregular maintenance are common.

C.S.

India has an ample supply of well trained engineers and scientists. In the concluding articles of this Survey our correspondents examine the impact they are making on the country's high technology industries.

New markets for aircraft

LAST MONTH a small team from the Bangalore headquarters of the State-owned Hindustan Aeronautics (HAL), India's only aircraft manufacturers, spent 10 days in Malaysia *and Singapore on a mission that* marks a new tack in company policy: a search for export markets. The two South-East Asian countries both operate Alouette III helicopters, and HAL manufactures these as the Chetak for the Indian Air Force, complete with the Artouste IIIB engine originally made by Turbomeca. With Aerospatiale in France closing down its Alouette III line, HAL sees an opportunity to supply these and other *countries with spares and components.*

If a deal comes off it will be HAL's second exports success. Earlier this year, along with Bharat Electronics, *India's fore-*most electronics company, it won a $750,000 order from Yugoslavia to supply specialised airborne and ground electronic equipment, which is now being made entirely in India. A successful south east Asia mission would thus underline India's desire to become a competitor on the world's aircraft markets.

The new export orientation follows years during which HAL has worked virtually exclusively to supply the Indian Air Force. Through licensing and collaboration agreements with foreign manufacturers, such as the ones with Aerospatiale and Turbomeca, the company has built up experience in the production of aircraft and helicopters, the manufacture and overhaul of aero-engines and the production of various accessories and related equipment.

Thus, apart from the Chetak helicopter, HAL is now manufacturing MiG 21M supersonic interceptor fighters (together with the engines) in collabora*tion with the USSR*, Ajeet interceptor / ground - attack fighters (otherwise known as the Gnat), with Orpheus 701 engines under agreements with *Hawker Siddeley and Rolls-*Royce, the German-inspired Marut HF-24 ground attack/ground support fighter powered by Orpheus 703 engines, and *the Cheetah helicopter* with SNIAS of France and Turbomeca.

In the process an indigenous industry has been created, as the Indian Government hoped. The Indian Air Force's Kiran HJT-16 jet trainer and counter insurgency aircraft was designed, developed and built at HAL, and a Mark II version is now being developed, powered by Orpheus 701 engines in place of the imported Bristol Viper Mk. II engine. The company has also designed and developed the versatile Basant agricultural aircraft, already in extensive use.

HINDUSTAN AERONAUTICS

1 BANGALORE COMPLEX			
Aircraft division	Marut HF-24 (+trainer)	Ground attack Ground support	
	Ajeet (Gnat Mk. 1) (+trainer) under development	Ground attack interceptor $744,900	Hawker Siddeley, UK
	Kiran HJT-16	Jet trainer $1,031,400	
	HPT-32 under development	Piston-engined trainer	
Engine division	Orpheus 701 and 703	For Ajeet and Marut (and Kiran)	Rolls-Royce (1971), UK
	Artouste IIIB	For Cheetah and Chetak	Turbomeca, France
	Dart Mk.531	For HS 748	Rolls-Royce (1971), UK
Helicopter division	Cheetah SA315 (+agricultural version)	Transport, observation, rescue $435,480	Snias, France
	Chetak (Alouette III)	Observation, rescue, rural medicine, antisub, antitank, strike, rescue $458,400	Aerospatiale, France
	Advanced light helicopter under devpt.	To replace Cheetah, Chetak, 1986-87	
Foundry and forge	Aircraft/aero-engine quality castings and forgings		
Overhaul division	Overhaul of jet and piston engine aircraft, piston engines, instruments and accessories		
2 MIG COMPLEX			
Koraput division	R-II-F2S-300 engine for MiG 21 Overhaul F2 engines		
Nasik division	MIG-21M air-to-air-missile		
3 ACCESSORIES COMPLEX			
Hyderabad division	MIG Avionics IFF equipment Missile subassemblies ATC radar Electronic components		
Lucknow division	Accessories for aircraft and engines Hydraulic and air conditioning equipment Wheels, brakes and panel instruments		
Kanpur division	HS-748	Twin turboprop passenger and transport plane for Indian Airlines and Indian Airforce $2,865,000	
	Basant	Agricultural aircraft $86,950	

Trainer

On top of this, HAL is developing a trainer version of the Ajeet, the first *prototype* of which is due to roll out in 1981, an advanced light helicopter to replace the Cheetah and Chetak in 1986-87, and a piston-engined trainer, the HPT-32, which is expected to be available for the market by 1981. The company, which began life in 1940 as Hindustan Aircraft and was merged with Aeronautics India in 1964, is thus the embodiment of India's blossoming aeronautics industry.

Like most countries with an aeronautics industry, however, India is not completely independent. While manufacture of *many of its aircraft is from the* raw-materials stage, imports of components and parts are still essential. The import component of HAL's aircraft is not greater than 30 per cent, however, and it is said that the figure could conceivably fall to something like 10 per cent when fence . Production starts pro- a public sector company being set up by the Ministry of Defence duction (in a couple of years' time) of the sophisticated light alloys used by the aerospace electronics and nuclear industries.

The strategic decision to aim for a high degree of self-reliance has undoubtedly been costly to India, however, and it is partly because of this that HAL's future will be rather different from its past. For a *start, the company is no longer* pricing its aircraft on a "cost-plus" basis, having moved recently to a "fixed-quotation" régime, under which *cost over-*runs will come out of the profit guaranteed by the government. The incentive thus exists for expanding HAL's scale of production.

Along with the search for potential export markets, therefore, additional work is being *sought in the civilian field.* HAL's Kanpur division has produced over 70 HS-748 medium transport aircraft under licence from Hawker Siddeley, powered *by* Rolls Royce Dart RDa 7 turbo-prop engines also manufactured at HAL. These are in service both with the Indian Airlines, the internal airlines, *and the Indian Air Force,* and there could well be scope for further growth.

More ambitiously on this *front,* HAL is now looking to take advantage of the booming business in passenger travel which Indian Airlines is pulling in, and wants to produce a short-*haul 20-seater turbo-prop feeder* liner to cope with customers wishing to fly beyond the main centres. According to HAL's chairman, Air Marshal S. J. Dastur, a collaborator has *not* been chosen, but a committee set up to look into the matter — in the running are Dorniers, Beechcraft and Saab aircraft manufacturers — is due to produce a report about now for the Civil Aviation Ministry.

The more controversial aspect of HAL's future concerns India's proposed purchase of what is known as a Deep Strike Penetration Aircraft. Apart from the MiGs and Marut fighters produced at HAL, the Air Force's 670-odd combat aircraft include Soviet SU-7 aircraft, Hawke Hunters and Canberra bombers. Now it has under consideratio the purchase of the Anglo French Jaguar, the French Mirage F-1 or the Swedisl Viggen, each of them a mor advanced aircraft said to b capable of pinning Pakistan' Air Force to the ground — point not lost in Pakistan which would hope to acquir *American A-7 aircraft if Indi* goes ahead.

A high-powered Indian dele gation visited Britain, Franc and Sweden earlier this yea and submitted its report to th Cabinet soon after returning i mid-March. Since then report have emerged, subsequentl denied, that wide differences o opinion on whether the acquisi tion is even necessary hav appeared between the Defenc and External Affairs Ministrie

It has further been suggeste that the delegation recom mended the Jaguar, a view th will gain strength with las month's reports that the Unite Staes *will not allow the sale o* the Viggen, which has America engines. Selection of the Anglo French Jaguar would also hav the merit of not arousin *political sensibilities.*

No decision has yet bee made, HAL is obviously hopin to be able to build the new air craft, and the suggestion ha been made that the choic depends partly on how willin each of the manufacturers is t allow the technology to be trans *ferred—perhaps over a period o* years—in order to accomplis this end. India would pre sumably want in time to be abl to export the aircraft as wel

C.S.

Defence requirements

INDIA HAS in its armed forces something like 1m men whose needs are being increasingly *met from within the country.* A chain of defence establishments run by the Director-General of Ordnance Factories produces a wide range of weapons, ammunition and *equipment including* guns, tanks, bridges, missiles and all kinds of "software" needed by the military. In addition, nine public sector defence *undertakings make aircraft,* ships, electronics, heavy earth-moving equipment, machine tools and the like. Defence officials in India — like their coun*terparts all over the world* — are secretive about production, but a measure of the scale of operations is available from the fact that more than 150,000 *people of various skills are em*ployed in defence undertakings.

Of these, 92,000 are employed by nine major undertakings which are under the wing of the Defence Ministry *but whose* activities are very much part of the country's industrial effort. With a total investment of roughly Rs 2.75bn, their production in 1977-78 was worth about Rs 4.3bn. All make substantial profits since production for defence purposes is roughly half their total. The rest takes care of civil needs and they have substantial export earnings — an impressive Rs 294m in 1976-1977.

Mazagaon Docks is the biggest foreign exchange earner — its markets lie mainly in the Middle East but it also has extensive repair facilities at Bombay — and others are forging ahead. Bharat Electronics, established to meet the more sophisticated needs of the armed forces, is the leader for professional and consumer products within the country and recently won a prestigious order worth Rs 340m from a European company; its exports orders in 1976-77 were over Rs 100m.

Indeed, by establishing indigenous manufacture of a number of items — frequently based on their own research and development efforts — the defence undertakings have given a substantial impetus to sophisticated *technology.* Examples include aircraft for defence and civil use by Hindustan Aeronautics; electronic communication equipment, radar and *professional* grade components by Bharat Electronics, naval and merchant vessels by Mazagoan Docks; large capacity dredges, tugs and bulk carriers by Garden Reach Shipbuilders; heavy earth-moving equipment of various kinds by Bharat Earth Movers; and high-speed cutting tools by Praga Tools.

They have also stimulated industrial activity in the small-scale sector by promoting ancillary and subcontracting work. Hindustan Aeronautics, for example, is in the process of adding 12 ancillary units to 11 already working for it. Bharat Electronics has 14 such units.

Since self-reliance is the basic aim of the defence industries, their research and development efforts have helped to improve their profitability. Hindustan Aeronautics' design bureau has *designed aircraft of various* kinds, including jet fighters and piston engine aircraft such as the Basant used for agricultural spraying. Bharat Electronics has been equally successful. Its range of facilities for the design, development and engineering of modern professional electronic equipment and components meets the needs of not only the defence services but also the police, All India Radio, TV stations, the Civil Aviation Department, Overseas Communications Centre, Posts and Telegraphs and a host of other customers.

Efforts of Bharat Earth Movers' research and development division at the Kolar gold fields have resulted in four new products, of which the 2.3 cu metre track shovel is already being produced. User field trials of a 4.5 cu yd front end loader and a 1.3 cu metre shovel are nearing completion. The prototype of a 32-ton bottom coal hauler, after completing trials, is being set for user field trials. The design of a 2 cu yd articulator front-end loader has been completed and a prototype is almost ready. It is hardly surprising that the major defence industries have no major problem of idle capacity—perhaps the only sector in Indian industry to have this enviable record.

Technology

Efforts are now being made to maximise "indigenisation" in the defence industries, mostly through their own research efforts but also by importing technology. Imports of certain ranges of sophisticated components needed for aeronautical and electronic industries will come to an end when a new super alloys project, Mishra Dhatu Nigam, is commissioned soon.

The Defence Ministry says that an added push has been given to "indigenisation" in the past year or so, and units like Bharat Electronics, Bharat Dynamics and Bharat Earth *Movers now* make something approaching 80 per cent of requirements for end-products. In the case of Leander-class frigates being built at Mazagaon Docks, there is an increasingly indigenous input of impressive and sophisticated weapons control systems, electronics equipment and machinery.

In addition to the major defence undertakings which are run virtually in the same manner as other public sector units, ordnance factories in India have grown in numbers as well as diversity and sophistication. They have achieved self-sufficiency in such items as semi-automatic rifles and carbines; tanks, infantry anti-tank and anti-aircraft guns; specially-designed mountain guns, field guns, light and heavy mortars; fuel for missiles; fire-control instruments; Kruppman bridges; load-carrying trucks and patrol vehicles. Since peace-time use of many of these items is minimal, production caters also for civil needs and exports.

New items are continually emerging, with projects covering a wide range of technology like production engineering, metallurgy, chemical and explosive technology, vehicles, clothing and leather. About 40 *new projects being imple*mented will create capacity for production of improved versions of various kinds of weapons, rocket and ballistic propellants, ammunition, *pyrotechnic stores* and the like. One example of the kind of help given to civilian needs is supply of commercial blasting explosives to Coal India *to help the company increase* production of a scarce source of energy.

Five ordnance factories making various *items of* clothing and related products devote nearly 30 per cent of their capacity to civilian needs and to exports. They take orders from government departments like the railways, police, para-military units. Increasingly they are supplying other countries. While the bulk of exports consists of "software" items, it is now admitted that small arms are also being sold abroad so that at least a small part of India's defence production capacity is being used to tap the lucrative international arms market.

K.K.S.

A rush for electronics

THE THRUST of official policy in electronics is to achieve an increase in production "in which a natural growth of exports is assumed as well as production to meet only felt needs in the domestic area, without any artificial boost to any sector."

Clearly, this is a major policy shift since the thinking six years ago was to achieve maximum acceleration of growth based on exportable electronic items. At that time, exports were assigned top priority in view of the shortage of foreign exchange reserves to finance the import bill.

Having given exports a back seat, the effort is now to meet the demands of the economy for electronics in the sixth plan (1978-79 to 1982-83) in the light of investment proposed on various sectors. The slogan is *self-reliance and self-sufficiency* in electronics, as in other industries.

Partly because of a change in the strategy and partly due to circumstances, the electronics output has not accelerated as anticipated. Between 1966 (when the first organised effort to boost electronics production was made under the guidance of the late Mr. H. J. Bhabha, chairman of Atomic Energy Commission) and 1975 the output of electronic equipment rose to Rs 2.9bn, and components to Rs 730m, for which the Bhabha committee had set a target of Rs 3bn, and Rs 850m. Subsequently the Perspective Report on Electronics in India (1975) fixed new production targets—Rs 4.5bn (including defence hardware) for 1977 and Rs 5.2bn for 1978. These are scaled-down targets, since the Fifth Plan document had projected a production of Rs 7.30bn for 1978-79.

Electronics production (excluding defence hardware) rose from Rs 3.15bn in 1975 to Rs 4.53bn in 1977—an annual average growth of more than 20 per cent. Consumer electronics, whose growth had decelerated in the previous three years, provided the necessary push. The rural market is the backbone of the radio industry. A slow growth in rural incomes had resulted in a setback to sales of transistor radios. The favourable terms of trade to agriculture over the past three years are boosting demand for electronic gadgets.

Inadequate

The Achilles heal of the Indian electronics industry is the components sector. Poor quality of components (40 per cent. of TV breakdowns was attributed to this) and inadequate availability have hindered the growth of the electronics industry. Over the past two years, components production has grown at an annual average of less than 10 per cent. This slow growth has created distortions in the industry because of a spurt in demand for electronic equipment, whose production has gone up by 80 per cent in the past three years. Prices of components have consequently soared, contrary to the declining trend throughout the world.

Studies by the Electronics Commission have identified fragmentation of installed capacity as the main reason for this. The emphasis then was on a wider distribution of the available capacity among a large number of entrepreneurs to avoid a monopolistic trend, which has become an emotive issue. As a result of advances in production techniques and automation, the international trend is for increasing the scale of production. The Commission has worked out minimum viable capacity for component units under Indian conditions and these will be kept in view while licensing new capacity.

The public sector, which is supposed to make good the gaps, is finding it difficult to cope. The Government has funded large amounts for research in areas considered useful to the country but the results do not yet seem to be impressive. Of course, research and development is the most risky venture. Quite a few projects initiated many years ago are still in progress. The Government, however, claims success in transferring know-how for commercial exploitation in a number of areas — silicon single crystals, tantalum electrolytic capacitors and software packages for the TDC 312 computer which has been developed by the public sector through the Electronics Corporation of India Ltd. (ECIL). It appears beneficial to buy the latest technology on an outright basis and try to improve it through local development as Japan had done in its early stages of development. Some public sector units, which have licences to produce new generation components like LSIs, are seeking additional know-how.

A debate is on at present as to how the Government can revitalise the public sector units. One suggestion emanating from responsible government quarters is to bring all public sector production units under the umbrella of a holding company on the lines of the organisation for public sector steel plants. There are six large units—Bharat Electronics, Instrumentation Ltd., National Instruments, Indian Telephone Industries, ECIL and CEL—controlled by various ministries. Opponents of the move put forward the example of Petroleum and Chemicals Ministry splitting the public sector fertiliser industry into small and "viable" companies to improve management control and accountability.

The Government is now aware of the need to give a push to the electronics industry, but in its search of acceptable alternatives, the present government appears to be less doctrinaire. Gaps are to be filled in medical electronics, computers, defence, telecommunication hardware and space research. The scope for foreign participation exists in fields other than defence and space research. In fact, when the public sector failed to rise to the occasion, the Government brought in Honeywell to make control panels. Another significant example is Siemens, which has adopted an unconventional approach. It has offered collaboration to the public sector Bharat Heavy Electricals Ltd. to make thyristor control drives of higher ratings while seeking permission to produce drives of lower ratings in its factory.

It is certain that in electronics, probably more than any other industry, foreign companies will be needed both as investors in India and as suppliers of technology. As the experience of ITI shows, there are important gaps in Indian companies' technology which can only be met with foreign assistance. Moreover this is a field where technology is changing at an extraordinarily rapid rate; any country which wishes to establish a position in electronics has to have access to the international "club."

This does not mean dependence on the dreaded multinationals, but it does imply the need for a non-doctrinaire approach to the development of the various sectors of the industry—the foreign-owned sector, the public sector, the large-scale private sector and the small-scale sector.

The Indian Government has invited foreign electronics companies to establish export-oriented ventures in the Santacruz Electronics Export Processing Zone (SEEPZ) in Bombay. Progress at the start was slow, mainly because of the world recession in electronics, but a number of promising ventures has been started up. For example, Tata is planning a joint venture with Burroughs of the U.S. for the manufacture of computer peripherals: India and Brazil will be used by Burroughs as the two supply sources for certain types of equipment. It is still unclear, however, how successful SEEPZ will be in spreading new technology throughout the domestic electronics industry. The structure of the industry, both the public and private parts of it, will need to be strengthened if India is to make a major advance in electronics.

R.C.M.

INDIAN TELEPHONE INDUSTRIES

INDIAN TELEPHONE Industries, the State-owned manufacturer of telecommunications equipment, had a disastrous experience when it introduced in Bombay the Pentaconta version of the Crossbar system in collaboration with ITT's Belgian subsidiary. At that time —the mid-1960s—the Crossbar system was still unproven and the peculiarities of the Bombay traffic pattern proved too much for it. ITI was forced to develop an Indian version of Crossbar which is now being installed on a trial basis in Delhi; a similar system has been installed successfully in Surinam.

There is huge scope for expansion in India since there are still only three telephones per thousand inhabitants, compared with more than 600 per thousand in some advanced countries. But, as in other countries, the choice of switching systems is a difficult one. Much of the existing network is based on Strowger and the ITI management is well aware of the danger of jumping too quickly into the electronic age. At the same time it is reluctant to commit too large an investment to Crossbar, which may become outdated. Some Crossbar equipment is being imported from Europe and Japan.

ITI, which has 24,000 employees, has a substantial research and development programme in such fields as UHF and microwave systems, it is doing work in stored programme control and other electronic equipment. It has carried out work successfully in third countries, both on its own and in collaboration with foreign companies. It is in the running for sub-contracts on the big Saudi Arabian telecommunications contract. As one executive put it. "if you can tackle the problems of the Indian telephone network, you can tackle anything." But the management is also well aware of its limitations in technology and has no qualms about seeking foreign assistance.

It is clear that ITI will need foreign assistance, as it moves into the electronic era and the management has no inhibitions about this. A major problem is the lack of an indigenous components industry: developments in ITI have to be seen in the context of the Indian electronics industry as a whole, including of course, computers. For the moment the company is watching international developments and exploring various possibilities of collaboration. After the Bombay experience, it is unlikely to make a rash commitment.

G.O.

Fresh objectives in pharmaceuticals

THE PHARMACEUTICAL industry is in for structural changes. It has been set three major objectives, the first of which is to double production in five years from the 1977-78 level of Rs 8.5bn to reach the Sixth Plan target of Rs 19bn in 1982-83. Secondly, the country is to be put well on the way to self-reliance in drug technology and self-sufficiency in bulk drugs, a substantial portion of which are now imported. The third objective is to make foreign companies which had entered the country when there were no rules and regulations abide by the norms now governing foreign investment.

Before the Foreign Exchange Regulation Act (FERA) was introduced, foreign investment could flow unrestricted into the small-scale sector (investment in plant and machinery of Rs1m). The realisation of the first two objectives will depend on the projected trebling of bulk drugs production from Rs 1.65bn in 1977-78 to Rs 4.75bn in 1982-83.

While the objectives are unexceptional for a developing country, the strategy of achieving them is being questioned. The Government wants to realise the ambitious drug production target by reducing the role of those forces which had contributed most to the industry's development up to now. A leading role is assigned to the public sector in production and distribution of drugs. Out of the Rs 2.5bn additional investment proposed to achieve the Rs 19bn production target, Rs 1.5bn will be in the public sector and the remainder shared by the private sector, both Indian and foreign.

Essential

The change of strategy is because of a feeling in the Government that foreign drug companies have concentrated on the profitable lines of formulations and the neglect of bulk drugs, especially those considered essential to the country. Out of the Rs 7bn formulations produced in 1976-77, Rs 2.32bn (43 per cent) were accounted for by the foreign sector as against Rs 630m bulk drugs produced by it. On the other hand the share of public sector in bulk drugs and formulations worked out to 32 per cent and per cent respectively.

The Government has defined an area in which the various sectors of the drug industry can operate keeping in view the country's needs and the availability of technology. Foreign investment is welcomed in 42 drugs including chloramphenicol, neomycin, vitamins A, B-6, B12, D3 and K, insulin, aspirin, ... caffeine (synthetic) and prednisolone. ... is to be given to the ... sector by allotting it a higher proportion of formulations to bulk drugs (10:1) than the foreign sector (5:1) and by forcing the latter to market to non-associated formulators 50 per cent of bulk drugs produced by them.

In contrast the public sector has to sell 40 per cent of its bulk drug production and the private Indian drug companies only 30 per cent. An encouragement to the use of indigenous bulk drugs is provided for in the form of linkage of bulk drug imports, whose proportion is fixed at one to two.

The oft-repeated demand for nationalisation of foreign drug companies has been rejected. The Government seems to have recognised the contribution of the foreign companies to drug production when it watered down the recommendation three years ago of a government committee headed by Mr. J. L. Hathi to reduce the foreign equity stake to 26 per cent. Originally, the FERA guidelines accorded a priority status to the drug industry, necessitating foreign equity dilution to 74 per cent. The Hathi Committee had stripped it of the priority status pending a detailed study.

The new drug policy is a compromise between the original FERA guidelines and Hathi committee recommendations. A new classification of drug companies is to be made on the basis of technology employed. Drug companies employing "low" technology will be asked to dilute foreign equity to 40 per cent (against 26 per cent recommended by Hathi Committee) and those with "high" technology will be allowed to retain foreign equity as to more than 40 per cent, the exact quantum and the classification of technology to be decided by a government committee of experts.

The impact of the policy will be felt on 45 foreign companies (out of 2,500 drug producers) accounting for 43 per cent of total pharmaceutical production. Of the 45, seven are branches of multinationals. In 14 others the foreign stake is more than 74 per cent. Taken by country, 18 of the 45 are American, 13 British, six Swiss and four West German.

On current reckoning none of the companies is in an uncompromising mood as in the case of Coca Cola or IBM, and most of them are expected to fall in line with the new drug policy. The Organisation of Pharmaceutical Producers of India (OPPI), which is dominated by foreign drug companies, is evolving a definition of "technology" for consideration by the expert committee.

Another major departure from the FERA guidelines is the manner of disinvestment by drug companies. The diluted shareholding is to be offered first to public sector drug undertakings — Indian Drugs and Pharmaceuticals and Hindustan Antibiotics — and if they are not interested, it will be taken up by public financial institutions. Employees of foreign companies are to be offered up to 10 per cent of share issues. This stipulation does not apply to other FERA companies, which can sell shares to the Indian public at the price fixed by the Capital Issues Controller.

A beginning has already been made with Bayer India, which has been asked to allot additional capital, being raised to finance an expansion programme, to financial institutions and not to the general public as was proposed earlier.

Curbs

On the basis of the revised norms for drug companies' foreign equity dilution, there will now be four sectors — the State sector, a new joint sector with private foreign and Indian Government participation, Indian private sector and foreign sector. The Indian private sector of course welcomes the curbs on foreign drug companies. At the same time it does not want reservation of items for the public sector. It is also opposed to the new joint sector since the Government will find it economic to allow full utilisation of capacity of equity-diluted foreign units and expansion of capacity, which is considered a detriment to the growth of Indian private sector.

A point of common concern are the changes in the drug pricing. The decision to allow a 12 per cent return on net worth (equity and free reserves) helps only the public sector, which is engaged so far in mainly basic drugs, to be in the black. The graded method of fixing "mark-up" — the increase allowed over the cost of production to take care of marketing, sales promotion and profit — is a matter of concern to Indian and foreign drug companies.

For the first and second categories, out of the four into which all formulations are divided, the mark-up is only 40 per cent and 55 per cent. For category three, comprising items like vitamins and cardiovascular drugs, the mark-up is 100 per cent. The new price structure coming into force next year — there is a price freeze for one year — will have to take the realities of the situation into account. The whole price fixing exercise has been so ad hoc that the application of even the limited mark-up for categories I and II will push up market prices, something the Janata Government cannot countenance.

Adjustments will have to be made in the mark-up so that prices of essential drugs are kept within limits and at the same time ensure that drug companies are not driven into the red. Exercises are under way to determine the impact of the new mark-up on each company on the basis of 1977 product-mix.

R.C.M.

FOREIGN HOLDINGS

Selected pharmaceutical companies with more than 50 per cent foreign equity

	As of year	Paid-up Capital (Rs. m)	Foreign equity holding as % of paid-up Capital
1. Abbott Laboratories (India) (subsidiary)	1975/76	0.1	100
2. Beecham (India)	1975/76	0.6	100
3. (The) Boots Company (India)	1975/76	7.75	58.1
4. Burroughs Wellcome & Co. (India)	1975/76	5.0	100
5. C. E. Fulford (India) (subsidiary)	1975/76	0.5	100
6. Ciba-Geigy of India	1975/76	61.5	*66
7. Cyanamid (India)	1975/76	14.01	65
8. E. Merck (India)	1975/76	7.5	80
9. Glaxo Laboratories (India)	1975/76	79.88	75
10. Indian Schering	1975/76	6.6	88.7
11. Johnson and Johnson	1973	*3.6	*75
12. May & Baker (Branch)	1975/76	N.A.	100
13. Merck Sharp and Dohme of India	1975/76	18.0	60
14. Parke-Davis (India)	1975/76	21.0	83.33
15. Pfizer	As on 30/11/1974	55.33	75
16. Richardson Hindustan (incl. Wm. S. Merrell and Co.)	1975/76	11.0	55
17. Roche Products	1973	*10.0	*80
18. Sandoz (India)	1975/76	15.0	60
19. Smith Kline and French (Branch)	1975/76	N.A.	100
20. Wyeth Laboratories	1975/76	9.0	74

*Hathi Committee Report 1975

Carter's gamble in the Middle East

BY JAMES BUXTON

THE MIDDLE EAST summit meeting which President Carter has called for early next month at Camp David in Maryland is probably the last chance of making decisive progress in the phase of the peace process which began when President Sadat of Egypt visited Jerusalem last November. All three parties to the summit know that there may be nowhere to turn if a meeting of the two chief parties to the Middle East conflict under the chairmanship of the U.S. ends in failure. The U.S. Government clearly believes that only by dramatically raising the stakes is there any possibility of reviving negotiations.

Egypt and Israel have the next three weeks to formulate their negotiating positions for the summit. Each side naturally is anxious to ensure that if the talks do break down it will be the other side that gets the blame for "intransigence" and "obstruction." The U.S., too, must work out exactly what role it will be playing at Camp David. Given the complexity of the issues and the constraints both on Mr. Begin, the Israeli Prime Minister, and on Mr. Sadat, the most that can be hoped of the Camp David meeting is that it will lead to a new, more fruitful phase of negotiations. Even a breakthrough would, perhaps, be more likely to take the form of an apparently unspectacular declaration of principles than of an agreement on the transfer of territory. After 30 years of Middle East conflict, even that would be a lot.

No one doubts that both sides need peace badly. For Egypt it represents the only chance it has to solve the alarming problem of an economy which is patently unable to meet the needs of a population growing too fast for its land, food, and water resources. If Israel's problems look less urgent, they are no less serious: in the 30th year of its existence it must now devote about 40 per cent of its budget to defence, and Israelis must bring up their children and even their grandchildren to accept the strong possibility that they will have to fight, and perhaps die, in another war.

But the need for peace does not by itself produce a settlement. Since last November Mr. Begin has made what by Israeli standards are quite substantial concessions. He has broadly offered to give up Sinai and has lately indicated that after a five-year period of local autonomy Israel would be prepared to consider giving up some territory on the West Bank and the Gaza Strip. For a man who has so often stressed the need for Israel to include the biblical regions of Judea and Samaria, that is something of an advance, and it has not been popular with all of his supporters.

Arab demands

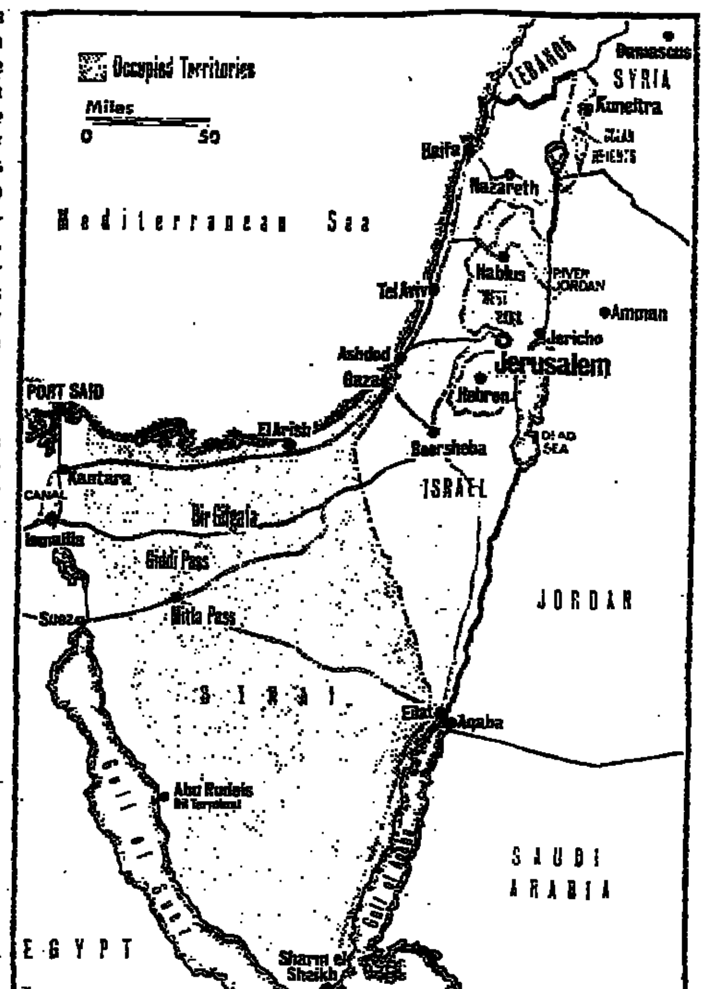
But this is well short of what Mr. Sadat has been demanding and is even further short of the demands of other Arab states, not to mention the Palestine Liberation Organisation. The latter wants at the very least to see a Palestinian state established forthwith in the West Bank and Gaza, under its own auspices, while President Sadat has proposed that the West Bank and the Gaza Strip be at first returned respectively to Jordanian and Egyptian rule and that after a five-year period they should have some form of Palestinian government.

It is perhaps partly because Israel's military capability has become so much greater than that of the Arab states since the war of 1973 that its own proffered concessions have generally been seen as stingy and grudging. Mr. Begin has not looked the man to rise to the occasion of the psychological breakthrough which Mr. Sadat's trip to Jerusalem undoubtedly represented. His standing has not been helped by some unfortunate and fierce remarks.

Contradictory policies have been pursued by different ministers, especially on the thorny issue of Jewish settlements in the occupied territories, and Mr. Begin's government has created the impression that it formulates policy on a day-to-day basis. Mr. Begin himself has seemed torn between the desire to be the man who brought Israel peace and the fear of being the man who gave away part of the historic land of Israel.

All this has played into the hands of Mr. Sadat, who generally appears to be the more generous, flexible and reasonable of the two men. Yet it should be remembered that in January he suddenly ordered his negotiating team to leave Jerusalem and break off negotiations just when some progress appeared to be in sight in spite of some tactless remarks from Mr. Begin the night before. Last month Mr. Sadat stated that there could be no more talks until Israel had made some territorial concessions—just after his Foreign Minister, Mr. Ibrahim Kamel, had spoken not unhopefully of the outcome of his meeting at Leeds Castle in Kent with his opposite number, Mr. Moshe Dayan.

Mr. Sadat has varied his negotiating position this way and that, in public and in private, since last autumn. But the crucial point is that he is asking not only for the return of Egypt's territory (Sinai), but for a settlement of the issues of the West Bank, Jerusalem and Gaza, which are the direct concern not of Egypt but of Jordan and the Palestinians (indeed, according to the decision of the Rabat summit of 1974 of the PLO). Yet Jordan has not committed itself to supporting his peace plan, and King Hussein is known to believe that the Sadat initiative is as good as dead. Most Palestinians are firmly opposed to Mr. Sadat's stance. In the Arab world the Egyptian leader is fully supported only by Sudan.



Saudia Arabia, Egypt's financial backer to the tune of at least $1bn a year, has always been lukewarm about Mr. Sadat's initiative. It feels that any settlement which Mr. Sadat reaches with Israel is likely to fall well short of what other Arab states demand; that a sell-out could lead to dangerous instability in Egypt and would play into the hands of the "rejectionist" states such as Syria and Iraq; and that this would threaten the fundamentally fragile oil states with their monarchical governments, their valuable but vulnerable assets, and their lack of human resources.

The Arab world already does look dangerously divided and unstable in Saudi eyes. The situation in Lebanon is deteriorating; a feud has been raging both within the Palestinian movement and between Palestinians and Iraq; North and South Yemen are on bad terms, and the Aden regime appears to be more under Soviet domination than before. There even are reports of arms being smuggled into Saudi Arabia from Iraq. In the past few weeks Crown Prince Fahd of Saudi Arabia has been pressing Mr. Sadat to take a firmer, less conciliatory line towards Israel in the hope of achieving a more united Arab front from which to negotiate. For Saudi Arabia this objective is probably more important than a settlement with Israel, but equally it wishes to avoid war.

Israel therefore doubts whether Mr. Sadat could actually live up to commitments made in negotiations. Mr. Begin said recently that no one can have something for nothing. If Israel makes territorial concessions it is likely to ask Egypt to drop the propaganda war against Israel, or to dissociate itself from the Arab boycott, or to take the first steps to normalising relations. These are things which Mr. Sadat may not be able to give, in view of his dependence on Saudi Arabia.

That is why Israel now seems to be looking for a formula which will enable it to appear flexible on the issue of the West Bank and Gaza without actually committing itself to withdrawing from occupied territory. It has not made any concessions in the past few days to enable the talks to go ahead, and the U.S. appears to be pinning its hopes on Mr. Dayan's offer at Leeds Castle to discuss territorial compromise if it was proposed by Egypt. Israeli officials stress that Mr. Dayan also said Israel would never return to the pre-1967 war borders regardless of what security guarantee it is offered.

Compromise

There is probably a majority within the Israeli Cabinet for some vague offer of territorial compromise and if Mr. Begin shares this view, as it now appears he does, it can be hardened into a negotiating formula in the next few weeks. At all costs Israel wants to avoid being seen to be the party which caused the negotiating process to break down.

But Israel fears that the U.S. will take the opportunity of the Camp David summit to put pressure on the Jewish State to be more forthcoming than it has been in the past. Indeed there is a suspicion in Jerusalem that Mr. Cyrus Vance, the U.S. Secretary of State, may have given some undertaking to Mr. Sadat which resulted in his decision to attend the talks. There is uncertainty about what Mr. Vance meant by saying that the U.S. would be a "full partner" in the talks. Both Mr. Vance and Mr. Carter's national security adviser, Mr. Zbigniew Brzezinski, have emphasised that the U.S. is prepared to make its own proposals if the talks bog down.

On the other hand it is the theme of Mr. Sadat's policy over the past seven years that only the U.S. can bring about a Middle East settlement, and that it can do so by putting pressure on Israel in the form, for example, of reducing aid. He would no doubt like to see Mr. Carter produce an American plan which the U.S. would have to push through, and which would inevitably be more to the disadvantage of Israel than Egypt. A U.S. plan seems unlikely, however, and pressure is a weapon that would have to be used cautiously, not least because with mid-term Congressional elections due less than two months after the summit Mr. Carter may feel the need to please the Jewish Democratic vote. The Jewish lobby has lately indicated deep disaffection for his Middle East policies. Nor is there any point in applying U.S. pressure to obtain a settlement which turns out to be politically unviable for Egypt.

The U.S. intention appears to be to reach a declaration of principles on the lines of that agreed between Mr. Carter and Mr. Sadat at Aswan in January. It included the provision of secure borders for Israel in return for a peace treaty, withdrawals from the occupied territories, and the participation of the Palestinians. Building on this, a way might be found for Mr. Begin to put his name to a statement at the end of the September summit that was specific enough on the issue of withdrawals to enable the peace process to continue.

Letters to the Editor

British exporters and entry to the Japanese market

From the Director General, Keidanren

Sir,—According to my understanding, Mr. Nichol, chairman of Japan Trade Advisory Group, British Overseas Trade Board, ("Dialogue with Japan," July 25), is in the best position to promote British exports to Japan by giving up-to-date and correct information to British exporters on the Japanese market. I am, however, very surprised and disappointed to find that in his letter he mentioned several points which are based upon out-of-date information or misunderstandings on the Japanese market, which thereby tend to discourage the efforts of British exporters to increase their exports to Japan. Up-to-date and correct information is as follows:

Japan's "national economic strategy," as stated by Prime Minister Fukuda at the Bonn summit, is to keep "the total volume of Japan's exports for the fiscal year 1978 at or below the level of the fiscal year 1977." The volume of exports in the first six months has in fact been steady. The "strategy based on economic growth" no longer operates to promote exports.

The "low level of imports of manufactured goods" is not, as Mr Nichols suggests, "deliberate." The level reached 30 per cent before the quadrupling of oil prices in 1973. This was reasonable for a country so wholly dependent on imports for its raw materials and fuel. Organisation of Petroleum Exporting Countries' prices depressed the level to 20 per cent, but in June this year it had already recovered to nearly 30 per cent. If trade and prosperity return, the level will eventually rise higher.

"Administrative guidance" by MITI is now concentrated on curtailing Japan's exports and increasing imports. Unfortunately it is less effective now in curbing galloping industries than it was formerly in guiding them along the swiftest paths of expansion. But to the extent to which it is effective it now operates in British favour, and not against the UK.

In the Japanese distribution system some more direct channels are opening up: but the system is older than the Japanese "big business" enterprises, who are not the cause of its complexity. Had they been in a position to control its development, it would no doubt be more efficient by now.

Major Japanese industries have tended, as Mr. Nichols says, towards self-sufficiency in subcontracting. The supplies of parts and services have been so integrated into the process of manufacture that foreign suppliers have to compete not only in price and quality but also with the outstanding flexibility, adaptability and reliability of existing sub-contractors before the Japanese assembly plants dare switch from their present trusted suppliers. Even here some small beginnings have been made and the major car manufacturers are seeking to expand these.

Mr. Nichols complains of "the reliance of importers for credit on the big ten trading companies." Importers might not turn down credit if the British exporter could offer comparable terms.

The reflex action of big industries in Japan to close in on foreign firms making substantial inroads has been "swift and instinctive." According to the abrupt environmental policy of the Japanese Government, the soda industry in Japan was obliged to change its production procedure, after great difficulty, and later, as the situation became worse owing to inflation and depression, they strongly protested against the advance made by Dow Chemicals which, however, after a long and hard struggle, were finally accepted and succeeded in winning the place to which they were entitled. Hitachi were less successful in their attempt to set up in England.

The "high mark-ups and low volume" sales of consumer goods have resulted in part from the willingness of British suppliers, and sometimes also British agents, to make comfortable profits for small efforts. In the last two or three years by far the most rapidly growing retail channels have been the super-market chains who offer excellent openings for mass sales at keen prices.

The "pressure on foreign investors to go in for joint ventures" has often been welcomed by the foreign firms, due to the realisation that a joint venture was more profitable under the terms of the Japanese business methods. The pressure now is less, and where such joint ventures still seem to make commercial sense they should now offer an easy opening for whatever components can be more cheaply imported from Britain.

It is true that with the support of British Government institutions and money, there has been a great increase in British efforts to sell in Japan. If, however, the results have seemed less than proportionate, this is not due to the problems in the Japanese market, but it may be due to the inefficient advance market research or to inadequate cultivation of importers, distributors and consumers in Japan. In Japan, more than most countries, mutual confidence and trust between the seller and the buyer at every level is of the highest importance.

Even when the generosity of the British Overseas Trade Board has brought the seller and his products to Japan, he still needs to select support and win the co-operation of a suitable importer—and if possible, of distributors and users as well, through sustained and constant contact with them. Just a short-term dispatch of trade missions or company top executives is not enough to bring about fruitful results.

Masaya Miyoshi,
Keidanren,
(Federation of Economic Organisations),
9-4, Otemachi, 1-chome,
Chiyoda-ku, Tokyo.

Bureaucracy at work

From Mr. D. Lewis

Sir,—I received by post the other day a letter acknowledging my application for a standard licence under the Consumer Credit Act, 1974, and giving me a reference number to quote in future correspondence with the Office of Fair Trading.

This set me thinking about the whole *raison d'etre* of the licencing operation and the department which is to control the system. What is actually going to be achieved? One thing I do know is that the speed with which my cheque was presented for payment was exactly the opposite to the long delay (nearly a month) before I received what is only an acknowledgement of an application and not a licence itself. And if, as the reference suggests, at least 70,000 applications are or have been applied for one only has to multiply that number by say £45 to see the kind of money involved.

So what will this money be used for? I suppose, for a start, to reimburse Government for the large advertisements placed in national papers and magazines indicating that licencing was on its way. Then there were the books setting out the requirements of the Act for those whose activities were covered by the new law. Presumably searches upon the applicants have to be made through credit bureaux and criminal files to see if there are any adverse entries. I still do not see that adding up to £45 so I suspect that there will be other joys to come. For example, how about half-yearly return showing the number of cases dealt with (forms to be completed in triplicate of course) and precise details of applicants ages, amount being borrowed, and purpose of loan?

The point I am making is, of course, to show that once set up bureaucracy must justify itself. And at the end of three years (the first period for the holding of a licence), surprise, surprise the licence has gone up.

Will the new system help the customers in their search for credit. I don't think so. For one thing the obsession with the true interest rate obscures the fact this may be related to the actual loan and not to other charges which go with it (e.g. life insurance, sickness and accident benefits, as a compulsory package). One effective way to deal with a dishonest intermediary is for a company not to deal with him.

I suspect that would be too easy a solution for Government which is seeking ever — so insidiously to control the free workings of the business world.

David Lewis.
David Lewis (Financial) Services,
Lincoln House,
190, Broomfield Road,
Chelmsford, Essex

Edible bread

From Mr. J. Morris

Sir,—I was greatly entertained by the bakers' hopeful notion of forming a Bread Advertising Group ("BAG"—of nails, I should think) with its attendant string of dough-pitching agencies (August 10). This is wholly the wrong approach. All they need to do is substitute something edible for what they produce now.

John Morris.
36, Bruton Avenue,
Solihull, W. Midlands.

The status of engineers

From Mr P. Mason

Sir, — Mr. Gainsborough (August 4) secretary of the Institution of Electrical Engineers, considers that the registration and statutory licensing of engineers, as recommended by his institution, is necessary to improve the standards of qualification for engineers and thus raise their status.

But surely, Mr. Gainsborough is barking up a very wrong tree if he and his institution think that any statutory persuasion would be used to enhance standards (and thus support the so-called elitism of which his institution is apparently accused!).

The present social climate is to make it easier for anyone wishing to obtain a particular qualification or enter a particular profession not harder. The greater statutory control of education over recent years has hardly led to a raising of standards and one fears the same thing would happen in the engineering profession, with a consequent lowering of what status we do have.

I certainly support the IEE's own raising of standards as those of my own institution are of a high order and this has not deterred our many applicants from attempting to reach them. But I cannot support the IEE's desire for the deadening hand of bureaucracy.

Peter Mason,
(Past-President, Institution of Structural Engineers),
Pell Frischmann and Partners,
5, Manchester Square W1.

Home loan rankings

From Mr. J. Schofield

Sir,—The fuss about building societies ranking young married women's salaries less than those of men seems to be getting out of hand with headlines such as yours (August 4) "Money sexism" and your correspondent's use of the words "offenders" and "discrimination" to describe building societies and their acts.

Let us get back to first principles. Building societies — (1) are a medium for bringing together lenders of money to people who want to borrow it to buy property; (2) pride themselves on being a secure investment (in money terms, unfortunately not in real terms); (3) carefully and sensibly have established guidelines based on experience relating the size of a loan to income — actual and potential — in order to prevent borrowers from over-extending themselves, thereby also improving the security of the lender's money.

Another first principle, which a lot of people are choosing to ignore, is that it is natural and normal that a significant proportion of young married women will become mothers which will in most cases prevent them for a while from earning money to their full capacity. It is to protect the interests of, inter alia, these young women and their families, and the investments of those who lend to them, that the commonsense principles under (3) above exist.

This is not "sexism" or "sex discrimination," it is simply normal business sense to limit the loan and the consequent repayments to a level which the borrowing couple can afford. The possibility, or even probability, that the young woman's income will be eliminated for a period is one of the factors to be taken into account when assessing the borrowing couple's future financial position.

If, as Lady Howe implies, the law permits normal commercial considerations to be applied to men but prevents the application of the same considerations to young women, then surely *this* is the real discrimination and the law should be changed.

A final point: investors might not be too happy in entrusting funds to a building society which lends them to people to whom the normal criteria of ability to repay have not been applied.

John M. Schofield
Grey Gables, Middle Avenue,
Farnham, Surrey.

Today's Events

GENERAL

Balance of payments figures (July).

Index of industrial production (June, provisional).

Retail sales (July, provisional).

The Queen returns from cruise in the Western Isles and goes to Balmoral.

Solemn requiem mass for Pope Paul VI, Westminster Cathedral, 11.15 am.

From today, all prices shown for consumers must include VAT, or clearly show the basic price plus the amount of VAT in cash terms. This applies not only to goods on display but also to services ranging from repairs to professional charges.

OFFICIAL STATISTICS

Turnover of catering trades (2nd quarter).

COMPANY MEETINGS

See week's Financial Diary on Page 41.

BALLET

Gala Season, with stars of world ballet, Royal Festival Hall, SE1, 7.30 pm (until August 19).

Asami Maki Ballet of Tokyo, Wimbledon Theatre, 8 pm (until August 19).

MUSIC

Richard Coulson (organ), St. Michael, Cornhill, EC3, 1 pm.

Clifford Curzon (piano), Isaac Stern (violin) and Pinchas Zuckerman (viola) in programme of Schubert. Queen Elizabeth Hall, SE1, 7.45 pm.

EXHIBITIONS

National Postal Museum, King Edward Street, EC4. Open 10 am to 4.30 pm, Monday to Friday.

Historical development of heraldry in Britain from its 12th century origins. British Museum, WC1 (until August 27).

Henry Moore drawings, Tate Gallery, Millbank, SW1 (until August 28).

George Romney drawings, Kenwood House, Hampstead Lane, NW3 (until September 3).

Sir Gilbert Scott centenary exhibition, Print Room Galleries, Victoria and Albert Museum, South Kensington, SW7 (until September 10).

Exhibition of 17th century Dutch painting, National Gallery, Trafalgar Square, WC2 (until September 17).

Josiah Wedgwood exhibition, Science Museum, South Kensington, SW7 (until September 24).

SPORT

Cricket: Second Test, England v. New Zealand, Trent Bridge. Swimming: Age-group championships, Coventry. Tennis: British under-21 championships, Manchester. Show jumping: Junior championships, Stannington.

COMPANY NEWS

Star Offshore turns in £1.9m as rate of profit growth slows

BY IAN HARGREAVES, SHIPPING CORRESPONDENT

THE BRITISH offshore support services group, Star Offshore Services produced record profits again last year but is planning to sell off at least part of its tug and barge fleet.

In its annual report published today, Star shows pre-tax profits of £1.9m, compared with £1.8m last year. In 1977 profits were boosted by £0.2m from a vessel sale.

This represents a slow-down in the growth of profitability from the first three years of the company's life and is mainly due to problems in the tugs and barge sector, which has been hit by the low level of platform construction work available.

Star sees no prospect of an improvement in this area of its business in the short term and is actively seeking buyers for its four tugs and single barge. No decision has been taken to sell the whole fleet, but this appears to be a possibility if buyers become available.

Star is also worried about the development of overcapacity in anchor handling supply ships in the North Sea. The annual report warns that the influx of more foreign, mainly Norwegian, competition may serve to force rates downwards from the higher levels achieved in early 1978.

Star Offshore, which is owned by various UK shipping companies and financial institutions, has in recent months moved towards greater specialisation in diving and subsea maintenance operations as a hedge against competition in other fields.

Earlier this year it ordered two diving support vessels from British shipyards and will shortly bring into service a one-man atmospheric submersible.

Total turnover last year was £12.9m, against £9.4m in 1977, which is a 38 per cent improvement. Earnings per share are 11.38p, compared with 12.84p in 1977 and the final dividend is 3.35p net per share, making a total of 6.48p.

BOARD MEETINGS

The following companies have notified dates of Board meetings to the Stock Exchange. Such meetings are usually held for the purposes of considering dividends. Official indications are not available whether dividends concerned are interims or finals and the sub-divisions shown below are based mainly on last year's timetable.

TODAY

Interims—Hallam Sleigh and Cheston, Manchester Ship Canal, Royal Worcester, Unitech.

Finals—Caledonian Trust, Vibroplant.

FUTURE DATES

Interims—
Bowater ... Sept 11
Brammer (H.) ... Aug 29
Moorside Trust ... Aug 15
Needlers ... Aug 15
Olives Paper Mill ... Aug 15
Rea Brothers ... Aug 17
Scottish Agricultural Industries ... Aug 31
Sun Alliance and L. Insurance ... Sept 6
Wagon Finance ... Sept 6
Ward Holdings ... Aug 18
West Group ... Aug 29

Finals—
Brotherhood (Peter) ... Aug 17
Jacks (William) ... Aug 15
London and Gartmore Invt. Trust ... Aug 22
Smith Scottish Trust ... Aug 16
Spring Ratings ... Aug 18

Lynton revalues properties

A revaluation of Lynton Holdings' investment properties in the UK, Belgium and Holland has produced a £4.23m surplus in the March 26, 1978, year for a total valuation of £32.87m.

Overall, the total property valuation in the accounts is shown at £46.37m, and the chairman, Mr. M. Lambert says in his annual statement that directors have reduced the existing book value of its soon to be completed 10,000 square metre office development in Brussels in view of the present market conditions.

The chairman says that much of the vacant space in the Leopold Quarter of the city has been occupied in the past year and although he expects rental levels to soon begin to rise, there will be an income deficit on the property when let.

Mr. Lambert says that in the UK the group has not yet succeeded in letting its office building in Norwich but considers that prospects are improving. During the year, it completed the refurbishment of the listed building, 12 Austin Friars, and achieved a successful letting to Commerzbank. The air-conditioned building under construction in W1 is due for completion next spring and the property has been let to a tenant of undoubted covenant.

Consideration is being given to the development of other properties held by the group or to be acquired, but market conditions continue to dictate a cautious policy.

As previously reported the taxable surplus of Lynton for the year rose from £0.47m to £0.56m and during the period there was a £154,966 reduction (£1.09m increase) in net liquid funds. At year end current assets were £4.29m (£3.72m) and current liabilities £3.16m (£7.35m).

FINANCE FOR INDUSTRY TERM DEPOSITS

Deposits of £1,000-£25,000 accepted for fixed terms of 3-10 years. Interest paid gross, half-yearly. Rates for deposits received not later than 1.9.78.

Terms (years)	3	4	5	6	7	8	9	10
Interest %	10¾	11	11¼	11½	11¾	12	12	12¼

Rates for larger amounts on request. Deposits to and further information from The Chief Cashier, Finance for Industry Limited, 91 Waterloo Road, London SE1 8XP (01-928 7822, Ext. 177). Cheques payable to "Bank of England a/c FFI." FFI is the holding company for ICFC and FCI.

Ratcliffs ahead to £0.82m at midway

ON SALES down from £21.93m to £21.47m taxable profit of Ratcliffs (Great Bridge), brass and copper strip manufacturer, advanced from £685,300 to £817,200 in the June 30, 1978, half year.

Directors say that both Great Bridge and its Canadian subsidiary had a good first half and that prospects for the remainder of the year are satisfactory.

Last year, after reporting record pre-tax profits of £1.6m, directors said the group would have to fight hard to repeat the 1977 performance in the current year. Much depended on the ability to hold export markets in the face of a strong sterling exchange rate based on doubtful inflation prospects.

After tax of £408,000 (£333,600), net profit was £411,100 (£347,900).

The interim dividend is ahead from 0.65p to 0.75p net per 25p share, and an additional 0.0183p is to be paid for last year following the change in the tax rate.

Bristol Stadium down so far

With attendances down 3.5 per cent and totalisator turnover up by 12 per cent, total turnover of Bristol Stadium rose from £248,103 to £271,907 in the June 30, 1978 year. After a reduction in investment income from £14,694 to £2,109 taxable profit fell from £34,037 to £18,238.

After tax of £9,494 (£17,704) net profit was £8,784 (£16,333). This time there was a £106 profit on the redemption of preference shares. For all last year taxable profit was £60,742 and a dividend of 0.544p net per 5p share was paid.

Hawthorn Baker returns to profit

AS FORECAST at half-time, Hawthorn Baker returned to profits in the second half of the May 31, 1978, year with a £40,307 surplus, reducing the pre-tax loss for the year from £30,532 to £11,893.

Directors say this was mainly owing to the success of positive presensitised litho plate, which first went to customers in September and for which orders continue to increase.

Again no dividend will be paid. The last payment was 3.25p net per 25p share in 1974-75 when profit totalled £60,946.

Directors say that subject to unforeseen circumstances they expect the current year to be profitable, particularly in the second half.

Turnover of the manufacturer and supplier of precision equipment for the printing industry was £1.2m (£1.08m) and interest charges were £17,291 (£7,705). After a tax credit of £10,174 (£5,209), net profit came out at £8,281 (£45,623). Earnings per share are shown at 1p (7p loss).

A revaluation of its Dunstable property resulted in an appreciation from the book value of £195,705 to £665,000.

FT Share Service

The following security has been added to the Share Information Service appearing in the Financial Times:

Clifford and Snell (Section: Electricals)

CORK GAS PAYS

An unchanged interim dividend of 2.275p net per £1 share has been declared by Cork Gas Co. Last year a final dividend of 2.925p was paid on record profits of £2.67m.

Mr. Donald K. Redford, chairman of Manchester Ship Canal Company, who is due today to announce results for the first half of 1978.

Burt Boulton outlook not encouraging

THE CURRENT financial year at Burt Boulton Holdings does not look encouraging, Mr. B. Kilpatrick, the chairman, says. Competition for the smaller total market is keen and great efforts will be needed to maintain the current level of profit.

He says in his annual statement that it is likely that its businesses will be adjusted during the year to increase future profitability from existing resources.

Sales of both sheet materials and building materials for home improvements and repairs are increasing but the demand for softwood is poor and competition keen. The changes in currency values can outweigh the available margins and it is difficult to foresee any real improvement in the profit from softwood trading this year, he says. Other sections of the timber companies are being developed and are making useful contributions.

The vagaries of the English climate in the first part of the summer have played havoc with the surface dressing season but by increased efficiency both the local authorities and group subsidiaries the programmes should be completed.

The weather in Italy during the last few months has not been much better he says, with the result that the sale of bituminous products has decreased and road works in the south have been difficult to complete. Recently there has been an improvement and it is hoped to regain most of the lost ground.

As previously reported taxable profit of Boulton fell from £1.03m to £0.58m in the March 31, 1978 year, with the timber side struggling to make profits in the face of adverse trading conditions, reduced margins and rising costs. The softwood side in particular had a poor year and was responsible for much of the downturn.

The sheet materials operation maintained its position however, and is now being re-organised with a view to substantially increasing its activities.

Lewes Road Sawmills had a good year and the production of high quality oak at Wheelers is now profitable and export orders are being developed.

At balance date net current assets were £6.71m (£6.48m) and fixed assets were £3.28m (£2.98m).

Meeting, Brettenham House, W.C., September 14 at noon.

BIDS AND DEALS

ELLIS & EVERARD FAMILIES NOW SPLITTING UP

After 130 years close association, the Ellis and Everard families are to split up. Mr. A. N. Ellis is resigning from the Ellis and Everard board and has been offered a position on the board of Travis and Arnold, the timber group which is taking over Ellis and Everard's building supplies operations in a deal worth £3.35m.

Resigning with Mr. Ellis from the board is Mr. D. A. Billson, who has been offered a post as senior executive with Travis and Arnold. Both have been associated with E and E's building supplies division.

The details are revealed in the letter to shareholders regarding the builders' merchanting operations.

Mr. A. J. Everard, chairman of Ellis and Everard, explains that the disposal has been caused by the high costs of maintaining a large branch network at a time when conditoins have been dull in the construction industry. With increased competition margins have been eroded in a time of low sales "and the building supplies division has not produced satisfactory profits since 1974, despite the closure of some branches."

A pro forma balance sheet shows that following the sale fixed assets at the year ending April 30, 1978 drop from £5.37m to £2.63m, while current assets fall from £11.2m to £8.66m. Current liabilities, on the other hand, fall by 60 per cent—from £8.89m to £3.55m. Bank overdrafts of £1.67m are eliminated.

ASSOCIATE DEALS

J. Henry Schroder Wagg and Co. on August 10 on behalf of associates purchased £10,000 Bowater 7 per cent convertible stock at 90 per cent, 31,000 Imperial Group ordinary at 80p, 20,286 Bowater ordinary at 213p, and £50,000 Imperial Group 8 per cent convertible stock at 76½ per cent. The company also sold on behalf of associates £24,200 Imperial Group 8 per cent convertible stock at 77½ per cent and 11,000 J B Eastwood ordinary at 143½p.

Breathing space plan for problem companies

BY DAVID FREUD

COMPANIES IN financial difficulties should be able to apply to court for a legal moratorium, the accounting profession has proposed.

In a submission to the Cork committee on insolvency law, the consultative committee of accountancy bodies said there was need for a moratorium in cases where arrangements were in hand to provide additional capital, for the sale of assets or where reconstruction was planned.

The court should accept the application only where it was satisfied that this was in the general interests of the company, creditors and employees.

The conditions of the order should be stringent and available only where the company could demonstrate reasonable chances of recovery.

Other recommendations were aimed at speeding up the initial stages of a liquidation. The accountants said that the time taken to appoint a liquidator often caused a danger vacuum.

The committee proposed where instant action was nec sary, there should be power apply to court for the immed appointment of a provisi liquidator, followed by a ventional appointment at a l stage.

Winding up under the su vision of the court should abolished and the remain three categories of liquidat should be renamed court liqu tion, creditors' liquidation shareholders'/members' diss tion.

An unopposed petition court liquidation—now ca compulsory liquidation—sh be granted automatically with formal hearing. The hearing petitions for compulsory liqu tions should be heard as vaca business to avoid delays.

The accountants propose all directors who held office the previous six months sh be compelled to attend the meeting of creditors.

Share prices forecast at peak this year

FINANCIAL TIMES REPORTER

THE UPWARD trend in consumer spending should take company profits growth and share prices to peak levels by the end of this year, according to the latest issue of Business Forecast, the quarterly economic review published by the Charterhouse Group.

Charterhouse warns that a general election could affect market sentiment and investors should soon be prepared to take profits from equity investments.

On the general economic fr Charterhouse says it anticip a slower rate of growth in output over the next 12 mo while a further rise in unemp ment is forecast.

The Retail Price Index expected to show a higher of increase later this year the annual inflation rate will rise to double figures. It says further decline in price infla levels can also be expected.

BR 'paying Labour and Liberals'

BRITISH RAIL is contributing to Labour and Liberal Party political funds by advertising in their official newspapers while ignoring the Conservative one, Mr. Norman Fowler, Conservative transport spokesman and MP for Sutton Coldfield, declared yesterday.

In a letter to Sir Peter Parker, British Rail's chairman, Mr. Fowler said the five full-page advertisements involved "substantial financial support" to the parties that until recently formed the Government coalition. He asked Sir Peter for a statement on "these contributions to party political funds" and added that the decision was open to challenge on commercial grounds, since the Tory paper had the biggest rea ship.

Mr. Fowler said a full-p advertisement in Labour Wee cost more than £600.

£100,000 gift for research

THE HAYWARD Foundat has allocated a further £100, to the University of Birmingh to endow a lectureship in engineering in the sub-dep ment of geriatric medic headed by Professor Bern Isaacs.

This brings the Foundati gifts to the University to ninte care of the aged to al £600,000.

LOCAL AUTHORITY BOND TABLE

Authority (telephone number in parentheses)	Annual gross interest	Interest payable	Minimum sum	Life of bon
	%		£	Yea
Barnsley Metro. (0226 203232)	11	½-year	250	5-7
Knowsley (051 548 6555)	11¼	½-year	1,000	5-7
Poole (02013 5151)	10⅞	½-year	500	5
Poole (02013 5151)	11¼	½-year	500	6-7
Redbridge (01-478 3020)	11¼	½-year	200	5-7
Thurrock (0375 5122)	11	½-year	300	4
Thurrock (0375 5122)	10⅞	½-year	300	3

BOND DRAWING

TELEFONAKTIEBOLAGET L M ERICSSON
9¼% Bonds 1991

S. G. WARBURG & CO. LTD., announce that the redemption instalment of U.S. $1,750,000 due 15th September, 1978 has been met by purchases in the market to the nominal value of U.S. $350,000 and by a drawing of bonds to the nominal value of U.S. $1,400,000.

The distinctive numbers of the bonds, drawn in the presence of a Notary Public, are as follows:—

35020	35045	35070	35094	35120	35145	35170	35194	35220	35244
35269	35293	35319	35343	35368	35392	35418	35442	35467	35491
35517	35541	35566	35590	35616	35640	35665	35689	35714	35739
35764	35788	35813	35838	35863	35887	35912	35937	35962	35986
36011	36036	36061	36085	36110	36134	36160	36184	36209	36233
36259	36283	36308	36332	36358	36382	36407	36431	36457	36481
36506	36530	36556	36580	36605	36629	36654	36679	36704	36728
36753	36781	36806	36830	36856	36886	36911	36936	36961	36985
37010	37034	37060	37084	37109	37133	37159	37183	37208	37232
37258	37282	37307	37331	37357	37381	37408	37437	37462	37506
37531	37556	37581	37605	37630	37654	37680	37704	37729	37753
37779	37803	37828	37852	37878	37902	37927	37951	37977	38001
38026	38050	38076	38100	38125	38149	38174	38199	38224	38248
38273	38298	38323	38347	38372	38397	38422	38446	38471	38496
38521	38545	38570	38594	38620	38644	38669	38693	38719	38743
38768	38792	38818	38842	38867	38891	38917	38954	38990	39014
39040	39064	39089	39113	39139	39163	39188	39212	39238	39262
39287	39311	39337	39361	39386	39410	39436	39460	39485	39509
39534	39559	39584	39608	39633	39658	39683	39707	39732	39757
39782	39806	39831	39856	39894	39919	39954	40002	40027	40051
40077	40101	40125	40150	40176	40200	40225	40249	40274	40299
40337	40361	40386	40410	40436	40460	40485	40509	40524	40559
40584	40608	40653	40678	40714	40739	40764	40804	40833	40906
40931	40955	40981	41016	41041	41065	41090	41114	41140	41164
41189	41213	41239	41263	41288	41312	41338	41362	41387	41411
41437	41461	41486	41510	41536	41560	41585	41609	41634	41659
41684	41708	41733	41758	41783	41807	41832	41857	41882	41906
41931	41956	41981	42005	42030	42054	42080	42104	42129	42153
42179	42203	42228	42252	42278	42302	42327	42351	42377	42401
42426	42450	42476	42500	42525	42549	42574	42599	42624	42648
42673	42698	42723	42747	42772	42797	42822	42846	42871	42896
42921	42945	42970	42994	43020	43044	43069	43093	43119	43143
43168	43192	43219	43242	43267	43291	43317	43341	43366	43390
43416	43440	43465	43489	43514	43539	43564	43588	43613	43638
43663	43687	43712	43737	43762	43786	43811	43836	43861	43885
43910	43934	43960	43984	44009	44033	44059	44083	44108	44132
44158	44182	44207	44231	44257	44281	44306	44330	44356	44380
44405	44429	44454	44479	44504	44528	44553	44578	44603	44627
44652	44677	44702	44726	44751	44776	44801	44825	44850	44874
44900	44924	44949	44973	44999	45023	45048	45072	45098	45122
45147	45171	45197	45221	45246	45270	45296	45320	45345	45369
45394	45419	45444	45468	45493	45518	45543	45567	45592	45617
45642	45666	45691	45716	45741	45765	45790	45814	45840	45864
45889	45913	45939	45963	45988	46012	46036	46062	46087	46111
46137	46161	46186	46210	46236	46260	46285	46309	46334	46359
46384	46408	46433	46458	46483	46507	46532	46557	46582	46606
46631	46656	46681	46705	46730	46754	46780	46804	46829	46853
46879	46903	46928	46952	46978	47002	47027	47051	47077	47101
47126	47150	47176	47200	47225	47249	47274	47299	47324	47348
47373	47398	47423	47447	47472	47497	47522	47546	47571	47596
47621	47645	47670	47694	47720	47744	47769	47793	47819	47843
47868	47892	47918	47942	47967	47991	48017	48041	48066	48090
48116	48140	48165	48189	48214	48239	48264	48288	48313	48338
48363	48387	48412	48437	48462	48486	48511	48536	48561	48585
48610	48634	48660	48684	48709	48733	48759	48783	48808	48832
48858	48882	48907	48931	48957	48981	49006	49030	49055	49080
49105	49129	49154	49179	49204	49228	49253	49278	49303	49327
49352	49377	49402	49426	49451	49476	49501	49525	49550	49574
49600	49624	49649	49673	49699	49723	49748	49772	49798	49822
49847	49871	49897	49921	49946	49970	49996	50020	50045	50069
50094	50119	50144	50168	50193	50218	50243	50267	50292	50317
50342	50366	50391	50416	50441	50465	50490	50514	50540	50564
50589	50613	50639	50663	50688	50712	50738	50762	50787	50811
50837	50861	50886	50910	50936	50960	50985	51009	51034	51059
51084	51108	51133	51158	51183	51207	51232	51257	51282	51306
51331	51356	51381	51405	51430	51454	51480	51504	51529	51553
51579	51603	51628	51652	51678	51702	51727	51751	51777	51801
51826	51850	51876	51900	51925	51949	51974	51999	52024	52048
52073	52098	52123	52147	52172	52197	52222	52246	52271	52296
52321	52345	52370	52394	52420	52444	52469	52493	52519	52543

52568	52592	52618	52642	52667	52691	52717	52741	52766	52790
52816	52840	52865	52889	52914	52939	52964	52988	53013	53038
53063	53087	53112	53137	53162	53186	53211	53236	53261	53285
53310	53334	53360	53384	53409	53433	53459	53483	53508	53532
53558	53582	53607	53631	53657	53681	53706	53730	53756	53780
53805	53829	53854	53879	53904	53928	53953	53978	54003	54027
54052	54077	54102	54126	54151	54176	54201	54225	54250	54274
54300	54324	54349	54373	54399	54423	54448	54472	54498	54522
54547	54571	54597	54621	54646	54670	54696	54720	54745	54769
54794	54819	54844	54868	54893	54918	54943	54967	54992	55017
55042	55066	55091	55115	55141	55165	55190	55214	55240	55264
55289	55313	55339	55363	55388	55412	55438	55462	55487	55511
55537	55561	55586	55610	55636	55660	55685	55709	55734	55759
55784	55808	55833	55858	55883	55907	55932	55957	55982	56006
56031	56056	56081	56105	56130	56154	56180	56204	56229	56253
56279	56303	56328	56352	56378	56402	56427	56451	56477	56501
56526	56550	56576	56600	56625	56649	56674	56699	56724	56748
56773	56798	56823	56847	56872	56897	56922	56946	56971	56996
57021	57045	57070	57094	57120	57144	57169	57193	57219	57243
57268	57292	57318	57342	57367	57391	57417	57441	57466	57490
57516	57540	57565	57589	57614	57639	57664	57688	57713	57738
57763	57787	57812	57837	57862	57886	57911	57936	57961	57985
58010	58034	58060	58084	58109	58133	58159	58183	58208	58232
58258	58282	58307	58331	58357	58381	58406	58430	58456	58480
58505	58529	58554	58579	58604	58628	58653	58678	58703	58727
58752	58777	58802	58826	58851	58876	58901	58925	58950	58974
59000	59024	59049	59073	59099	59123	59148	59172	59198	59222
59247	59271	59297	59321	59346	59370	59396	59420	59445	59469
59494	59518	59544	59568	59593	59618	59643	59667	59692	59717
59742	59766	59791	59816	59841	59865	59890	59914	59940	59964
60022	60046	60071	60096	60121	60145	60170	60194	60220	60244
60269	60293	60319	60343	60368	60392	60418	60442	60467	60491
60517	60541	60566	60591	60617	60641	60666	60690	60716	60740
60765	60789	60814	60839	60864	60888	60916	60940	60965	60989
61014	61090	61116	61140	61165	61189	61214	61239	61264	61288
61313	61349	61373	61398	61423	61447	61472	61497	61525	61549
61574	61599	61624	61648	61673	61698	61723	61747	61772	61797
61857	61881	61906	61930	61956	61980	62005	62029	62054	62079
62104	62128	62153	62178	62203	62227	62252	62277	62302	62326
62351	62376	62401	62425	62450	62474	62500	62524	62549	62573
62599	62623	62648	62672	62698	62722	62747	62771	62797	62821
62846	62870	62896	62920	62945	62969	62994	63018	63044	63068
63093	63118	63143	63167	63192	63217	63242	63266	63291	63316
63341	63365	63390	63414	63440	63464	63489	63513	63539	63563
63588	63612	63638	63662	63687	63711	63737	63761	63786	63810
63836	63860	63885	63909	63934	63959	63984	64008	64033	64058
64083	64107	64132	64157	64182	64206	64231	64256	64281	64305
64330	64354	64380	64404	64429	64453	64479	64503	64528	64552
64578	64602	64627	64651	64677	64701	64726	64750	64776	64800
64825	64849	64874	64899	64924	64948	64973	64998	65023	65047
65072	65097	65122	65146	65171	65195	65221	65245	65270	65294
65320	65344	65369	65393	65419	65443	65468	65492	65518	65542
65567	65591	65617	65641	65666	65690	65716	65740	65765	65789
65814	65839	65864	65888	65913	65938	65963	65987	66012	66037
66062	66086	66111	66136	66161	66185	66210	66234	66260	66284
66309	66333	66359	66383	66408	66432	66458	66482	66507	66531
66557	66581	66606	66630	66656	66680	66705	66729	66754	66779
66804	66828	66853	66878	66903	66927	66952	66977	67002	67026
67051	67076	67101	67125	67150	67174	67200	67224	67249	67273
67299	67323	67348	67372	67398	67422	67447	67471	67497	67521
67546	67570	67596	67620	67645	67669	67694	67719	67744	67768
67793	67818	67843	67867	67892	67917	67942	67966	67991	68016
68041	68065	68090	68114	68140	68164	68189	68213	68239	68263
68288	68312	68338	68362	68387	68411	68437	68461	68486	68510
68536	68560	68585	68609	68634	68659	68684	68708	68733	68758
68783	68807	68832	68857	68882	68906	68931	68956	68981	69005
69030	69054	69080	69104	69129	69153	69179	69203	69228	69252
69278	69302	69327	69351	69377	69401	69426	69450	69476	69500
69525	69549	69574	69599	69624	69648	69673	69698	69723	69747
69772	69797	69822	69846	69871	69896	69921	69945	69970	69994

On 15th September, 1978 there will become due and payable upon each bond, drawn for redemption the principal amount thereof, together with accrued interest to said date at the office of:—

S. G. WARBURG & CO. LTD., 30 Gresham Street, London, EC2P 2EB

or one of the other paying agents named on the bonds.

Interest will cease to accrue on the bonds called for redemption on and after 15th September, 1978 and bonds so presented for payment must have attached all coupons maturing after that date.

U.S. $31,500,000 nominal bonds will remain outstanding after 15th September, 1978.

The following bonds, drawn for redemption on the 15th September, 1977 have not yet been presented for payment.

35015	35075	35095	35115	35135	35175	35195	35215	35235	35375
35395	36415	35435	35455	35475	35595	36795	36915	37515	37655
39055	39095	39695	39715	39795	39955	40735	41035	41055	41075
41095	41115	41135	41155	41175	41195	41215	41235	41255	41275
41295	41315	41335	41355	41375	41395	41415	41435	41455	41475
41495	41515	60265	60275	60295	60315	60535	60555	61155	65375

30, Gresham Street, London, EC2P 2EB. 14th August, 1978.

Pending dividends timetable

The dates when some of the more important company dividend statements may be expected in the next few weeks are given in the following table. Dates shown are those of last year's announcements, except where the forthcoming board meetings (indicated thus*) have been officially published. It should be emphasised that the dividends to be declared will not necessarily be at the amounts or rates per cent shown in the column headed "Announcement last year." Preliminary profit figures usually accompany final dividend announcements.

	Date	Announcement last year		Date	Announcement last year
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

* Board meetings intimated. † Rights issue since made. ‡ Tax free. § Scrip issue since made from reserves.

RECENT ISSUES

EQUITIES

Issue Price p	Amount Paid up	Latest Renunc. Date	1978 High	1978 Low	Stock	Closing Price p	+ or –	Div. Amount	Times Covered	Gross Yield	P/E Ratio
[illegible]	F.P.	[illegible]	[illegible]	[illegible]	Castlem Superfoods	[illegible]		[illegible]		[illegible]	7.1
[illegible]	F.P.	[illegible]	[illegible]	[illegible]	Emray	[illegible]					
[illegible]	F.P.	[illegible]	[illegible]	[illegible]	Kornelech	[illegible]		[illegible]		[illegible]	17.3
[illegible]	F.P.	[illegible]	[illegible]	[illegible]	Running Perr. Services	[illegible]		[illegible]		[illegible]	6.5
[illegible]	F.P.	[illegible]	[illegible]	[illegible]	Jones (E.) (Jew'lrs) 10p	148		[illegible]		[illegible]	12.8

FIXED INTEREST STOCKS

Issue Price £	Amount Paid up	Latest Renunc. Date	1978 High	1978 Low	Stock	Closing Price £	+ or –
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

"RIGHTS" OFFERS

Issue Price p	Amount Paid up	Latest Renunc. Date	1978 High	1978 Low	Stock	Closing Price p	+ or –
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Renunciation date usually last day for dealing free of stamp duty. [illegible]

BASE LENDING RATES

A.B.N. Bank 10 %	■ Hill Samuel §10 %
Allied Irish Banks Ltd. 10 %	C. Hoare & Co. †10 %
American Express Bk. 10 %	Julian S. Hodge 11 %
Amro Bank 10 %	Hongkong & Shanghai 10 %
A P Bank Ltd. 10 %	Industrial Bk. of Scot. 10 %
Henry Ansbacher 10 %	Keyser Ullman 10 %
Banco de Bilbao 10 %	Knowsley & Co. Ltd. 12 %
Bank of Credit & Cmce. 10 %	Lloyds Bank 10 %
Bank of Cyprus 10 %	London Mercantile 10 %
Bank of N.S.W. 10 %	Edward Manson & Co. 11½ %
Banque Belge Ltd. 10 %	Midland Bank 10 %
Banque du Rhone 10½ %	■ Samuel Montagu 10 %
Barclays Bank 10 %	■ Morgan Grenfell 10 %
Barnett Christie Ltd. 11 %	National Westminster 10 %
Bremar Holdings Ltd. 11 %	Norwich General Trust 10 %
Brit. Bank of Mid. East 10 %	P. S. Refson & Co. 10 %
Brown Shipley 10 %	Rossminster 10 %
Canada Perm't. Trust 10 %	Royal Bk. Canada Trust 10 %
Capitol C & C Fin. Ltd. 10 %	Schlesinger Limited 10 %
Cayzer Ltd. 10 %	E. S. Schwab 11 %
Cedar Holdings 10 %	Security Trust Co. Ltd. 11 %
Charterhouse Japhet 10 %	Shenley Trust 11 %
Choulartons 10 %	Standard Chartered 10 %
C. E. Coates 10 %	Trade Dev. Bank 10 %
Consolidated Credits 10 %	Trustee Savings Bank 10 %
Co-operative Bank *10 %	Twentieth Century Bk. 11 %
Corinthian Securities 10 %	United Bank of Kuwait 10 %
Credit Lyonnais 10 %	Whiteaway Laidlaw 10½ %
The Cyprus Popular Bk 10 %	Williams & Glyn's 10 %
Duncan Lawrie 10 %	Yorkshire Bank 10 %
Eagil Trust 10 %	■ Members of the Accepting Houses Committee.
English Transcont. 11 %	* 7-day deposits 7%, 1-month deposits 7½%.
First Nat. Fin. Corpn. 13 %	† 7-day deposits on sums of £10,000 and under 6½%, up to £25,000 7½%, and over £25,000 8½%.
First Nat. Secs. Ltd. 12 %	
Antony Gibbs 10 %	‡ Call deposits over £1,000 7%.
Greyhound Guaranty 10 %	§ Demand deposits 7½%.
Grindlays Bank ‡10 %	
Guinness Mahon 10 %	
Hambros Bank 10 %	

INTERNATIONAL COMPANY NEWS

Brazil's foreign debt to reach '$40bn by year-end'

RIO DE JANEIRO, August 13.

BRAZIL'S foreign debt will reach a record $40bn by the end of 1978. Mr. Mario Henrique Simonsen, the Finance Minister, said here, reports AP-DJ.

But, Mr. Simonsen said, the Government was not concerned over this because foreign reserves were growing at a fast pace, and were expected to reach $10bn in December.

The foreign debt now stands at about $37bn, according to Government sources, and the country has $8.8bn in foreign reserves.

Government officials said that Brazil would have to pay some $7bn in foreign loan repayments and interest charges in 1979.

● Our financial staff adds: A debt figure as high as $40bn may surprise international bankers.

It represent an increase of 25 per cent from the $32bn of end-1977, and broadly maintains the average rate of expansion seen over 1976 and 1977, when there was a gain of $10bn. At $40bn, the debt would be some four times that before the 1973 oil price rises.

The increase in reserves already achieved this year has taken place in spite of the realising of a trade deficit of $456m in the six months to June—which has disappointed hopes that the country would record a further trade surplus, or at least a balance in trade, for the whole year.

Virtually all the Brazilian foreign debt increase in recent years has been accounted for by borrowing from international banks. It has gone substantially to finance large-scale projects, many of which are aimed at increasing exports or cutting imports.

Unlike many big international borrowers, Brazil does not have to repay a high proportion of its debt in the near future.

Meanwhile the International Monetary Fund has authorized a $71m loan to Morocco, to help offset the country's decline in export earnings.

The IMF said that Morocco's export earnings last year, mainly from the sale of phospates in world markets, were down about 5 per cent from the 1975-76 average.

Dealers protest over sales of Mercedes cars to workers

BY GUY HAWTIN

FRANKFURT, August 13.

DAIMLER-BENZ, the West German luxury car manufacturer, is under attack from its independent domestic dealers. The Motor Traders Association has protested that private customers have to wait for up to four years for delivery of the smaller Mercedes models, while the group's workers are able to buy them at 12-monthly intervals.

Bitterness over the facilities allowed to Daimler-Benz employees has mounted as the delivery periods for the highly-popular, expensive smaller Mercedes models has increased. Dealers claim that the group's employees are robbing them of business as they can sell the cars, after owning them for 12 months, at a handsome profit.

Already there is a form of "black market" in Mercedes cars, in that an owner who takes delivery of a new model can sell it at a handsome premium to another person right outside the showroom door. There is very little depreciation on a new Mercedes in its first year, and employees, who buy their cars at a 21.5 per cent discount, can reasonably expect to make a substantial amount over and above the price they have paid for their vehicle.

Last year the group's 132,000 labour force ordered about 50,000 Mercedes cars. This accounted for about 12 per cent of the group's total production, but—to the concern of the dealers—some 23 per cent of the total registrations of Mercedes cars in the domestic market. This year the number of cars ordered by employees is expected to be somewhat higher, although this should not materially increase the percentages.

It is difficult to see what Daimler-Benz can do in the face of the criticism. The question of sales to employees is decided in negotiations between the group's management and the works council which represents the employees' interests.

Not only is the management unable to change these terms unilaterally, but it has long been a practice in most German companies for employees to be able to buy products at a discount. All motor manufacturers in the Federal Republic offer their employees discounts.

Daimler-Benz has already taken measures to alleviate the situation. An agreement reached with the works council in 1976 stipulated that Daimler-Benz workers taken on after June 30, 1976, would have to wait 18 months before being allowed to order their first car, with delivery taking place 12 months later. After that, like other employees, they would be able to take deliveries of their cars in a 12-monthly cycle.

The group was able to do little to change the rules for longer-established workers without changing the conditions of employment.

HCA to expand in Australia

By James Forth

SYDNEY, August 13.

THE WORLD'S largest hospital management group, Hospital Corporation of America (HCA), plans to spend A$45m ($52.3m) over the next three years to establish an operation in Australia.

The American group has established an Australian subsidiary, Hospital Corporation Australia Pty., which has bought a private hospital at Baulkham Hills, a Sydney suburb, for about A$11m. The managing director of the Australian company, Mr. William G. White, said there were plans to acquire five more hospitals before the end of the year.

In addition, the company plans to construct further hospitals in an expansion programme which will require A$30m by early 1980. Of this amount about A$18m will be provided by a syndicated medium term credit facility.

Mr. White told a Press conference in Sydney, that the group's long range projections for 1982 indicated 10 hospitals with around 1,280 beds throughout Australia with emphasis on the eastern states.

Goodyear Australia in the black

By Our Own Correspondent

SYDNEY, August 13.

THE U.S.-OWNED Goodyear Tyre and Rubber Company (Australia), which has been operating in Australia for more than 50 years, returned to profits in the June half-year. The directors reported earnings of only A$507,000 (U.S.$590,000) for the period, but this is a major recovery on recent performances, which had resulted in losses amounting to A$21.4m over the past three years.

Goodyear losses were mainly due to competition from imports and late entry into the radial tyre market. The group has since invested heavily in an equipment modernisation programme.

Currency, Money and Gold Markets

A sterling performance

Currency movements in the foreign exchange market are never a straight forward affair and last week proved to be no exception. A brief glance would show the dollar continuing to sag under the weight of U.S. economic problems and more significantly from a general lack of confidence. The latter has rendered it vulnerable to any of the numerous rumours circulating at present, however ill-founded. It would also show the dollar, not surprisingly, a majority of the stronger currencies gaining large chunks at the dollar's expense.

Sterling is slightly different however, or at least has appeared to be performing in a different manner compared to say the Swiss franc or the West German mark. The authorities are faced with something of a problem in that last week's UK money supply figures although not in the least alarming, did show a noticeable rise in eligible liabilities and it follows that a concerted effort by the authorities to sell sterling in an attempt to maintain some stability would lead to an unwanted influx of money into the system.

Not that this problem is confined to the UK, but with the prospect of an early general election, such politically sensitive issues are likely to command a good deal of attention from the authorities over the next month or so.

Interest rates still remain artificially high with MLR at 10 per cent and an annual rate of inflation nearer half that figure. However, it seems likely that last week's money supply figures will only delay by two or three weeks any fall in MLR.

While the stronger currencies continue to appreciate, the Belgian franc has been fighting its own battle within the European "snake." Over a one week period the Belgian National Bank has been obliged to provide some Fr 10.243bn in support of its currency which has been trading on or around its lower intervention point against the West German mark for some time. The D-mark's rapid appreciation has caused problems and a quick succession of increases in Treasury bill rates and bond paper has given a clearer indication of the authorities' determination to support the franc through interest rates as opposed to a devaluation.

CURRENCY RATES

August 11	Special Drawing Rights	European Unit of Account
Sterling	[illegible]	[illegible]
U.S. dollar	[illegible]	[illegible]
Canadian dollar	[illegible]	[illegible]
Austrian schilling	[illegible]	[illegible]
Belgian franc	[illegible]	[illegible]
Danish krone	[illegible]	[illegible]
Deutsche Mark	[illegible]	[illegible]
Guilder	[illegible]	[illegible]
French franc	[illegible]	[illegible]
Lira	[illegible]	[illegible]
Yen	[illegible]	[illegible]
Norwgn. krone	[illegible]	[illegible]
Peseta	[illegible]	[illegible]
Swedish krona	[illegible]	[illegible]
Swiss franc	[illegible]	[illegible]

GOLD

	Aug. 11	Aug. 10
Gold Bullion (a fine ounce)		
Close	[illegible]	[illegible]
Opening	[illegible]	[illegible]
Morning fixing	[illegible]	[illegible]
Afternoon fixing	[illegible]	[illegible]
Gold Coins domestically		
Krugerrand	[illegible]	[illegible]
New Sovereigns	[illegible]	[illegible]
Old Sovereigns	[illegible]	[illegible]
Gold Coins internationally		
Krugerrand	[illegible]	[illegible]
New Sovereigns	[illegible]	[illegible]
Old Sovereigns	[illegible]	[illegible]
$20 Eagles	[illegible]	[illegible]
$10 Eagles	[illegible]	[illegible]
$5 Eagles	[illegible]	[illegible]

Public Works Loan Board rates

Effective from August 5

Years	Quota loans repaid by EIP†	Quota loans repaid At‡	Quota loans repaid at maturity§	Non-quota loans A* repaid by EIP†	Non-quota loans A* repaid At‡	Non-quota loans A* repaid at maturity§
Up to 5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Over 5, up to 10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Over 10, up to 15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Over 15, up to 25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Over 25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

* Non-quota loans B are 1 per cent higher in each case than non-quota loans A. † Equal instalments of principal. ‡ Repayment by half-yearly annuity (fixed equal half-yearly payments to include principal and interest). § With half-yearly payments of interest only.

THE DOLLAR SPOT

August 10	Day's spread	Close
[illegible]	[illegible]	[illegible]

* U.S. cents per Canadian $.

FORWARD AGAINST $

	One month	% p.a.	Three months	% p.a.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

THE POUND SPOT

Aug. 11	Bank rate %	Day's Spread	Close
[illegible]	[illegible]	[illegible]	[illegible]

FORWARD AGAINST £

	One month	% p.a.	Three months	% p.a.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Belgian rate is for convertible francs. Financial franc [illegible]. Six-month forward dollar [illegible] pm, 12-month [illegible] pm.

OTHER MARKETS

	£	$		Note Rates
Argentina Peso	[illegible]	[illegible]	Austria	[illegible]
Australia Dollar	[illegible]	[illegible]	Belgium	[illegible]
Brazil Cruzeiro	[illegible]	[illegible]	Denmark	[illegible]
Finland Markka	[illegible]	[illegible]	France	[illegible]
Greek Drachma	[illegible]	[illegible]	Germany	[illegible]
Hong Kong Dollar	[illegible]	[illegible]	Italy	[illegible]
Iran Rial	[illegible]	[illegible]	Japan	[illegible]
Kuwait Dinar (KD)	[illegible]	[illegible]	Netherlands	[illegible]
Luxembourg Frc.	[illegible]	[illegible]	Norway	[illegible]
Malaysia Dollar	[illegible]	[illegible]	Portugal	[illegible]
New Zealand Dollar	[illegible]	[illegible]	Spain	[illegible]
Saudi Arab. Riyal	[illegible]	[illegible]	Switzerland	[illegible]
Singapore Dollar	[illegible]	[illegible]	United States	[illegible]
South African Rand	[illegible]	[illegible]	Yugoslavia	[illegible]

Rate given for Argentina is free rate.

EXCHANGE CROSS-RATES

Aug. 11	Pound Sterling	U.S. Dollar	Deutschemark	Japanese Yen	French Franc	Swiss Franc	Dutch Guilder	Italian Lira	Canada Dollar	Belgian Franc
Pound Sterling	1.	1.964	3.858	364.5	8.418	3.335	4.198	1627.	2.230	60.96
U.S. Dollar	0.509	1.	1.969	185.6	4.286	1.647	2.137	828.4	1.135	31.05
Deutschemark	0.259	0.508	1.	94.25	2.176	0.836	1.085	420.7	0.577	15.76
Japanese Yen 1,000	2.743	5.388	10.61	1000.	23.09	8.875	11.52	4464.	6.118	167.2
French Franc 10	1.188	2.333	4.595	433.0	10.	3.843	4.987	1933.	2.649	72.41
Swiss Franc	0.309	0.607	1.196	112.7	2.602	1.	1.298	502.9	0.689	18.84
Dutch Guilder	0.238	0.468	0.921	86.84	2.005	0.771	1.	387.5	0.531	14.52
Italian Lira 1,000	0.615	1.207	2.377	224.0	5.174	1.988	2.580	1000.	1.371	37.46
Canadian Dollar	0.448	0.881	1.734	163.5	3.775	1.451	1.882	729.6	1.	27.33
Belgian Franc 100	1.641	3.222	6.345	598.0	13.81	5.308	6.887	2669.	3.659	100.

MONEY RATES

NEW YORK

Prime Rate	[illegible]
Fed. Funds	[illegible]
Treasury Bills (13-week)	[illegible]
Treasury Bills (26-week)	[illegible]

GERMANY

Discount Rate	[illegible]
Overnight	[illegible]
One month	[illegible]
Three months	[illegible]
Six months	[illegible]

FRANCE

Discount Rate	[illegible]
Overnight	[illegible]
One month	[illegible]
Three months	[illegible]
Six months	[illegible]

JAPAN

Discount Rate	[illegible]
Call (Unconditional)	[illegible]
Bills Discount Rate	[illegible]

LONDON MONEY RATES

Aug. 11 1978	Sterling Certificate of deposit	Interbank	Local Authority deposits	Local Auth. negotiable bonds	Finance House Deposits	Company Deposits	Discount market deposit	Treasury Bills	Eligible Bank Bills	Fine Trade Bills
Overnight	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2 days notice	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7 days or 7 days notice	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
One month	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Two months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Three months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Six months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nine months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
One year	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Two years	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Local authority and finance houses seven days' notice, others seven days fixed. [illegible] Finance House Base Rates (published by the Finance Houses Association) [illegible] Clearing Bank Deposit Rates for sums at seven days' notice [illegible] Clearing Bank Base Rates for lending 10 per cent. Treasury Bills: Average tender rates of discount [illegible].

MINING NOTEBOOK

Golden dividends and down-under diamonds

BY LODESTAR

CONTINUING last Monday's survey of autumn dividend prospects for the South African gold producers we come to St. Helena. This mine's star has dimmed with age as operations have moved southwards into lower-grade grounds, resulting in a drop in gold recovery per ton from 14.7 grams in 1972 to last quarter's 8.7 grams.

The impact of this has been compounded by increasing costs, and the dividend rate has been more than halved. The higher gold price has, however, led to a recovery in 1977-78 distribution prospects. The interim was lifted from 60 to 80 cents and the final could be 85 cents, making a total of 165 cents (96.7p) compared with last year's 115 cents.

Capital expenditure is now at a relatiely low level following completion of the new reduction works which will also treat ore from the new Unisel gold mine, fees from which should start to accrue to St. Helena next year.

The shares are not without some medium-term attractions although St. Helena was not among the "buy" recommendations in a number of recent brokers' circulars. The best verdict was that they are worth retention by shareholders.

Western Holdings is now very much in the waning stage of its career—a fact which should be borne in mind when looking at yield considerations. The remaining life is generally put at around 10 years, but it could be longer, though with a very much lower grade of ore, if the gold price remains over $200.

Medium-term dividend prospects are good. The interim was lifted from 140 to 190 cents and the October final could be 225 cents or better. That rate would make a 1977-78 total of 415 cents (243p) compared with only 280 cents last year.

There is a bit of uranium spice to come through the company's share in the Anglo American group's joint metallurgical scheme in the OFS, although revenue from this source will be small compared with that from Western Holdings' gold operations. The 50 per cent stake in Freddies Consolidated has been sold to Free State Geduld, in which Western Holdings resultantly has a shareholding to add to a portfolio which also includes St. Helena, Southvaal and the long-dormant Jeannette.

This raises the intriguing possibility that the end of its mining days might not see the end of Western Holdings itself, which could conceivably continue in another role within the vast Anglo American empire. So perhaps brokers Williams de Broe have more than medium-term reasoning on their side when they advocate a switch from Free State Geduld into Western Holdings.

A bright light that has led many a crusade in the Australian mining scene has been dimmed. The ebullient iron ore magnate Lang Hancock has closed his lively fortnightly the National Miner. I use the word dimmed, because the paper has been sold to the family interests of Sir Asher Joel and has resultantly been incorporated in Queensland's The Miner which is printed at Mount Isa and will, it is to be hoped, carry on the Hancock tradition of furthering the mining industry's eternal struggle against bureaucratic restrictions on its natural growth.

Fittingly, the Miner, in its new, enlarged, and now Sydney-based form, leads its front page with the scintillating diamond exploration scene in Western Australia, the pulsating share market side of which is now even evoking the question of which will be the next Poseidon—perish the thought!

Fortunately, the discovery which has sparked most of the excitement, Ashton in the Kimberley region, has as its main protagonist a major company, the RTZ group's Conzinc Riotinto of Australia. Not that this is entirely an insurance against wild outbursts of speculative enthusiasm for the shares of the junior explorers. After all, it was Western Mining that made the original nickel boom find.

The other question being asked is whether there is likely to be a rush of new flotations for diamond exploration. Those for nickel used to come along at the rate of two or three a week. This seems unlikely. There is enough debris left from the 1969-71 uproar to satisfy the demand, one would think. But the question is strong enough to arouse speculation in Sydney that one of the majors might father a diamond offshoot.

The only candidate I can think of is Malaysia Mining Corporation, with its 27 per cent stake in the CRA Ashton venture. It could make sense for this portion thereof to be the vehicle for a public offering which in the present climate would undoubtedly be eagerly snapped up and could have the political advantage of increasing the Australian slice of the equity.

Presuming that CRA is still regarded by the authorities as an overseas animal the only straight Australian stake at present is Northern Mining's modest 5 per cent. Some of the enthusiasm for its shares is based on the tenuous theory that it could be a vehicle for the required "Australianisation" of the project.

If MMC did come up with a flotation it would be of interest to Charter Consolidated, which is at present involved only indirectly in the down-under diamond play through its 28.6 per cent of MMC and 25.8 per cent of Selection Trust.

The fact that the latter, with its background of diamond-mining expertise in West Africa, is becoming such a significant participant in the feverish Australian exploration rush is doing much to foster the belief that diamonds may indeed be present in commercial quantities and not only at Ashton.

* * *

Tasminex was a strong market on Friday at 135p. As previously reported here, this notorious relic from the past has attained prosperity and respectability through a wolfram mine in Tasmania and has even paid a dividend. The latest news is that drilling to increase the ore-bearing area is giving encouraging results while the big Canadian group McIntyre Mines is sufficiently confident to be entering on the second stage of its exploration option.

INSURANCE

June fire damage up £3.5m on May

BY OUR INSURANCE CORRESPONDENT

WITH the pace of inflation temporarily at least slower, the fire insurance market must have been hoping if not expecting that the country's monthly fire damage bill would show some signs of stabilising if only for a short while. But the British Insurance Association's monthly assessment of fire damage in Great Britain (excluding Northern Ireland) shows that June's likely bill will amount to £25.9m, £3.5m up on May which itself was £2.7m up on April. The association's total estimate for the half-year amounts to £146.7m and this taken with the £147.3m of the second six months of last year pushes the moving annual total of fire damage to within £6m of the £300m mark.

Without correction for inflation, this moving annual total is now £60.5m up on the cost of fire damage for the similar period in the 12 months 1966-67. But one has to remember that at the end of last year we had a firemen's strike and that the extent of fire damage sustained last winter therefore was abnormal. Again, without taking into account inflation a comparison of the months November to January 1977-78 with November to January 1976-77 shows that £63.2m extra fire damage was recorded.

There is no doubt, firemen's strike or not and whether inflation is in single or double figures that fire wastage remains a national problem. The central fire liaison panel, which coordinates nationally the work of organisations concerned with fire prevention and included in its councils fire officers, the Confederation of British Industry, as well as insurers, is organising a national fire safety week starting on October 30 with the theme Stop Britain Burning.

One-hundred county fire panels and supporting groups will be organising conferences, displays and training courses to help all kinds of businesses to reduce their fire risks. Courses will show how to spot fire hazards and how to train staff in fire prevention and control. A packet of publications, posters, leaflets, guides, technical data and so on will be available in September from the panel at Aldermary House, Queen Street, EC4 at a cost of £5 a package.

A new feature of this annual safety week will be the finals of a youth quiz, in which 7,000 young people from 39 countries have taken part in qualifying rounds, receiving fire training along the way. The finals will be held in London at the City University on November 4.

From time to time, the Fire Protection Association aims its propaganda at architects, whose job must surely include essential consideration of fire hazards in the buildings they design. To help architects appreciate more fully the problems they face a residential course on structural fire precautions, starting on November 20, will be held at Burwalls, the residential centre at Bristol University.

The course will deal mainly with problems of existing buildings but will look at the requirements of new buildings as well and the association reckons that the course will be of interest not only to architects but surveyors, engineers, building control officers and architectural teachers. Course fee is £75 and applications should go to Miss Barbara Brown, of the Department of Extramural Studies, University of Bristol, 32 Tyndall's Park Road, Bristol BS8 1HR.

There are two other association conferences coming along: a two-day one at Eastbourne on September 19 and 20 will deal with training for fire safety, security against arson, and materials and fire safety, and a one-day conference will be held on September 27 at Sutton Coldfield on fire prevention for the engineering industry. Inquiries on these conferences should be addressed to Mrs. S. J. Bond, at the association, Aldermary House, Queen Street, EC4.

MOTOR CARS

CONFERENCES

ART GALLERIES

EXHIBITIONS

COMPANY NOTICE

CREDIT LYONNAIS
1977/1983 US$80,000,000
Floating Rates

Bondholders are hereby informed that coupon No. 4 of the above loan will be payable as from February 12 1979, at a price of US$46.18 per coupon, representing 186/360th of an interest of 8 15/16% per annum and covering the period from August 10th 1978, to February 11th 1979, inclusive.

The Fiscal Agent
CREDIT LYONNAIS—LUXEMBOURG

Corrected Notice
CREDIT LYONNAIS
1976/1982 US$75,000,000
Floating Rates

Bondholders are hereby informed that coupon No. 6 of the above loan will be payable as from February 8 1979, at the price of US$46.64 per coupon, representing 184/360th of an interest of 9 1/8% per annum and covering the period from August 8 1978, to February 5 1979, inclusive.

The Fiscal Agent
CREDIT LYONNAIS—LUXEMBOURG

THE GREENCROFT ESTATE COMPANY LIMITED

NOTICE IS HEREBY GIVEN that the Annual General Meeting of the above company for the year 1978 will be held on Wednesday, 6th September 1978 at 12.00 hours at the offices of Messrs *Wilkinson Marshall Clayton & Gibson*, 27 Grainger Street, Newcastle upon Tyne, in order to receive the Directors' Report and Statement of Accounts and the Auditors' Report thereon, to declare a dividend, to elect a Director, and to appoint Auditors. Special notice has been received of the intention to move a resolution re-appointing Mr. Edward Gibson, who attained the age of 70 on 29th March 1974, a Director of the company.

Any member entitled to attend and vote at the above mentioned meeting is entitled to appoint a proxy, who need not be a member of the Company, to attend and vote on his or her behalf.

A. E. CHARLESWORTH,
Secretary.

22 Ellison Place,
NEWCASTLE UPON TYNE
NE1 8XT.
3rd August 1978.

PUBLIC NOTICES

THE MERSEY DOCKS AND HARBOUR COMPANY

NOTICE IS HEREBY GIVEN that the following Terms and Conditions, which contain clauses limiting and excluding the Company's liability, have been revised and are now effective, viz.,

1) "STANDARD TERMS AND CONDITIONS FOR HANDLING GENERAL CARGO."
2) "COMMON USER TERMS AND CONDITIONS FOR ROYAL SEAFORTH CONTAINER TERMINAL."
3) "TERMS AND CONDITIONS RELATING TO GROUPAGE AND ASSOCIATED SERVICES AT ROYAL SEAFORTH DOCK AND WATERLOO GROUPAGE TERMINAL, LIVERPOOL."

Copies may be obtained at the address below by application to the Finance Department, Operations Division.

A. LYNCH, Secretary.
Port of Liverpool Building,
Pier Head,
LIVERPOOL,
Merseyside,
L3 1BZ.

HERTFORDSHIRE COUNTY COUNCIL
Bills £3m. issued 9.8.78 due 8.11.78 @ 9 1-64th%. Applications totalled £15m. Total outstanding £8m.

CLUBS

HOME CONTRACTS

Hunterston steel works rail link

Final rail link in the current developments at the British Steel Corporation's Hunterston project will be made by GRANT LYON EAGRE of Scunthorpe, under a contract valued at about £900,000. The company, a member of the Royal Bos Kalis Westminster Group NV, will lay 9 km of standard gauge track.

★

CJB DEVELOPMENTS has a contract from Vickers Shipbuilding Group to supply life support equipment, valued at over £800,000, for the Royal Navy's latest nuclear submarine. The equipment comprises high pressure electrolysers for the production of oxygen and molecular sieve absorption plants for the removal of carbon dioxide and other contaminants from the submarine's atmosphere.

★

Protection for the new Moffat gas pumping station—a link in British Gas's bulk transmission system in the Scottish lowlands—is to be provided by GRAVINER. Designed to provide a comprehensive fire and gas protection system, the contract is valued at over £150,000.

★

Amoco UK has placed an order for a Sealion 60 D crane with PRIESTMAN BROTHERS. The crane, costing about £300,000 has a lifting capacity of 60 tons at 30 feet radius, and a flameproof diesel engine prime mover. To be installed on a North Sea platform, this is a pedestal mounted crane with a triple hydraulic pump assembly, providing power to the upper gantry structure which carries the three winch drums.

★

A contract worth £55,000 for refrigeration plant has been awarded by T. Wall and Sons (Ice Cream) to GRAM REFRIGERATION (GB). This plant will operate in conjunction with existing development facilities which are being transferred from the Wall's factory in Acton to Gloucester. It will provide refrigeration for the various items of freezing, cooling and chilled water plants used to develop ice cream.

★

Four contracts, together worth £510,000, have been placed by the English Industrial Estates Corporation for the construction of advance factories at Crook, Co. Durham; Hatchmoor Industrial Estate, Torrington, Devon; St. Michael's Road, Widnes, Cheshire; and Haydon Bridge, Northumberland. The contractors are A. LAX AND SONS; SLEEMAN CONSTRUCTION; F. AND F. S. WHITE; and THOMAS MUCKLE AND SONS.

★

Worth £100,000, a contract to supply industrial television systems for use in the safe handling of irradiated fuel, has been placed with MARCONI AVIONICS (a GEC-Marconi Electronics company). The camera systems have been ordered by GEC Reactor Equipment for two nuclear power stations being built at Hartlepool, Cleveland and at Heysham, Lancashire. Cameras are also to be installed at Wylfa nuclear power station, on Anglesey, for use in a new dry store for irradiated fuel.

★

HADEN YOUNG has an £80,000 contract for general plumbing and effluent drainage at the Guinness Brewery, Park Royal. Work has started, and is scheduled for completion by the *end of September*. Main contractor is John Laing.

Businessman's Diary

U.K. TRADE FAIRS AND EXHIBITIONS

Date	Title	Venue
Current	International Gifts Fair (cl. Aug. 17)	Olympia
Aug. 22—24	Education and Communication Technology Exbn.	Holland Park School, W.8
Aug. 28—Sep. 2	International Motor Cycle Show	Earls Court
Sep. 3—7	International Watch and Jewellery Trade Fair	Earls Court
Sep. 3—7	Giftware and Fashion Accessories Trade Fair	Bristol Exhibition Centre
Sep. 5—7	Electronic Displays Exhibition	Mount Royal Hotel, London
Sep. 11—14	Electrical and Electronics Exhibition	Bristol Exhibition Centre
Sep. 17—20	MAB International Menswear Fair	Earls Court
Sep. 19—21	Firefighting and Prevention Exhibition	Eastbourne
Sep. 24—27	International Garden and Leisure Exhibition	Nat. Exbn. Centre, Birm'ham
Sep. 25—29	Furnaces, Refractories, Heat Treatment and Fuel Economy Exhibition and Symposium	Nat. Exbn. Centre, Birm'ham
Sep. 26—28	Mailing Efficiency Exhibition	Bloomsbury Centre Hotel
Sep. 28	Petroleum Equipment Exhibition	Treetops Hotel, Aberdeen

OVERSEAS TRADE FAIRS AND EXHIBITIONS

Current	International Fair (cl. Aug. 20)	Damascus
Current	16th Overseas Import Fair (cl. Sep. 3)	Berlin
Aug. 18—24	International Hi-Fi Exhibition	Dusseldorf
Aug. 25—27	International Men's Fashion Week	Cologne
Sep. 5—8	Third International Offshore North Sea Technology Conference and Exhibition	Stavanger
Sep. 3—8	Int. Hardware, Tools, Household Goods and Giftware Exhibition	Basle
Sep. 9—15	International Leather Week	Paris
Sep. 11—15	International Electra and Mining Exhibition	Johannesburg
Sep. 11—15	International Mining Exhibition	Belgrade
Sep. 12—15	International Congress and Exbn. on Data Processing	Berlin
Sep. 13—17	Int. Trade Exhibition for Home Improvements	Stuttgart
Sep. 13—21	International Engineering Fair	Brno
Sep. 19—22	Coffee Symposium and Trade Fair	Montreaux
Sep. 19—Oct. 1	International Trade Fair	Tehran
Sep. 22—25	Exhibition and Trade Fair of the Turkish Textile and Ready-to-Wear Industry	Basle
Sep. 24—27	Quojem: Hardware Trades Exhibition for retailers, wholesalers and manufacturers	Paris

BUSINESS AND MANAGEMENT CONFERENCES

Aug. 21	British Institute of Management: Selection Interviewing—Theory and Practice	Parker Street, W.C.2
Aug. 29—Sep. 1	Institute of Personnel Management: Practical Negotiation Skills	Hemingford Grey, Cambs.
Aug. 30—31	Financial Times: World Aerospace	Royal Lancaster Hotel, W.2
Aug. 31—Sep. 1	Brit. Inst. of Management: Effective Speaking—Practice and Coaching using closed circuit TV	Parker Street, W.C.2
Sep. 3—7	Esomar: Value for Money in Market and Social Research	Bristol
Sep. 3—8	British Veterinary Association: Annual Congress	Lancaster
Sep. 4—5	Brunel Univ.: Ergonomics of Workplace Design	Uxbridge, Middlesex
Sep. 4—5	Local Authorities Management Services: Negotiating Skills	Leicester
Sep. 4—7	British Farmer and Stockbreeder: Outlook for the English Wine Growing Industry	Wye College, Kent
Sep. 4—8	Institute of Personnel Management: Work of the Personnel Department	Embassy Hotel, W.2
Sep. 4—8	BACIE: Techniques of Instruction, Part 1	Sackville Hotel, Hove
Sep. 5	Management Training Consultants: Current Trends in Management and Supervisory Training	Leicester
Sep. 5	European Study Conferences: Safety Representatives and Safety Committees—Making It Work	Kensington Palace Hotel, W.8
Sep. 5—6	Institute of Personnel Management: The Secretary in Personnel Management	Whites Hotel, W.2
Sep. 6	Brunel University: Noise in Industry	Uxbridge, Middlesex
Sep. 7—8	Brit. Inst. of Management: Management Accounting for Non-Financial Managers	Parker Street, W.C.2
Sep. 7—8	Brunel University: What is organisation development?	Uxbridge, Middlesex
Sep. 10—15	Inst. of Personnel Management: Advanced Interviewing and Assessment Skills	Oxford
Sep. 10—15	Bradford University: Practical Skills of Managing People at Work	Bradford
Sep. 11	Brit. Inst. of Management: Unfair Dismissal	Parker Street, W.C.2
Sep. 11—15	Abraxas: Synectics—Innovative Skills	68 Churchway, N.W.1
Sep. 11—15	Brunel University: Production Management and Human Behaviour; also — Workplace Negotiations	Uxbridge, Middlesex
Sep. 11—15	Inst. of Cost and Management Accountants Summer School: Achieving Productivity and Reward	Surrey Univ., Guildford
Sep. 11—29	Brit. Transport Staff College: Strategies in Passenger Transport—Present and Future	Farnborough, Hants.
Sep. 12	GAM Foundation: Selling Solutions—not just White Space	Daily Mirror, E.C.4
Sep. 12—14	Inst. Personnel Management: Manpower Planning	Whites Hotel, W.2
Sep. 13	Henley Centre: Background Forecasts for Corporate Plans and Budgets to 1983	Carlton Tower, S.W.1
Sept. 13	Context Training: Managers' Course	Café Royal, W.1
Sep. 14	Inst. of Marketing: Trading in the 1980s	London Hilton, W.1

APPOINTMENTS

Mr. Michael Usher has been appointed a director of FLEDGELING INVESTMENTS.

★

Mr. R. A. Crouch and Mr. I. S. Wallace have been appointed directors of HARTLEY COOPER AVIATION.

★

For health reasons Mr. Frank A. Robinson has resigned as deputy group managing director of HARGREAVES GROUP and the Board has appointed Mr. Robert B. Strachan in his place. Mr. Robinson remains an executive director.

★

Mr. N. J. Walker-Robson has been appointed a director of CROSSWALL REINSURANCE. The chairman, Mr. Francis Perkins, has resigned because of his commitments with BIBA. Mr. J. D. Spooner has been appointed chairman.

PROTEA HOLDINGS LIMITED

(Incorporated in the Republic of South Africa)

ABBREVIATED PRELIMINARY YEAR END REPORT TO SHAREHOLDERS

The estimated trading results of the Group for the year ended 30th June, 1978, and the actual results for the comparable previous financial year are as follows:

	Year ended 30th June 1978	1977
Group turnover	R176,028m	R167,308m
Attributable to ordinary shareholders	R8,266m	R6,495m
Shares in issue	29,521m	29,521m
Earnings per share (cents)	28	22
Dividends per share (cents)	14	13

The 27% increase in per share earnings over the previous year was due not to any significant improvement in the market (turnover increased by only 5%), but rather to effective control of operating costs in the favourable conditions taken last year in eliminating various loss making activities. The financial structure of the Group is sound and it is very well placed to benefit from any revival in general business conditions.

The Board has decided to declare a final dividend of 10.5 cents per share (1977 — 10 cents) payable to shareholders registered by the close of business on 25th August 1978, which together with the interim dividend of 4.40 cents (1977 — 3.5 cents) gives a total dividend for the year of 14.40 cents (1977 — 13 cents).

Johannesburg
9th August 1978

F. J. Beard
Aiden Beard
Directors

Dfls 45,000,000.–
7½% bearer Notes of 1971 due 1975/1978
of
REPUBLIC OF SOUTH AFRICA

FOURTH ANNUAL REDEMPTION INSTALMENT

Notes belonging to Redemption Group No. 3 will be redeemed on and after

September 15, 1978

Paying Agents:
Amsterdam-Rotterdam Bank N.V.
(Central Paying Agent)
Algemene Bank Nederland N.V.
Bank Mees & Hope NV
Pierson, Heldring & Pierson N.V.
Banque de Paris et des Pays-Bas N.V.
in Amsterdam
and
Banque Générale du Luxembourg S.A.
Banque de Paris et des Pays-Bas pour le Grand-Duché du Luxembourg S.A.
in Luxembourg.

August 14, 1978

WEEK'S FINANCIAL DIARY

The following is a record of the principal business and financial engagements during the week. The Board meetings are mainly for the purpose of considering dividends and official indications are not always available whether dividends concerned are interims of finals. The sub-divisions shown below are based mainly on last year's timetable.

TODAY

COMPANY MEETINGS—

...Crewe Arms Hotel, Crewe, ...Cheshire, 12.
...Richmond House, Liverpool, 12.

BOARD MEETINGS—

Finals:
...ledonian Trust
...oroplant
Interims:
...ll Sleigh & Cheston
...anchester Ship Canal
...yal Worcester
...isec

DIVIDEND & INTEREST PAYMENTS—

...rchimedes Inv. Trust Income 2p
...lcutta Electric Supply Pf. 6pc
...R.F. 0.781667p and 0.335p
...alt Precision Engineering 0.58p
...ckson (J. and H. B.) 0.5p
...ational Carbonising Ord. 0.87p
...eburn Inv. Trust 1.25p
...George's Laundry (Worcester) 0.28p
...need Corons. 16 cents. 5pc 1st and 2nd ...ls. 38 cents
...bite Child and Beney 2p

TOMORROW

COMPANY MEETINGS—

...mming (Robert H.) 8, Crosby Sq., E.C., 12.
...cal Electronics, Charing Cross Hotel, ...W.C., 11.45.

BOARD MEETINGS—

Finals:
...sa Inv.
...otherhood (Peter)
...pital and National Trust
...le Electric Intnl.
Gresham Inv. Trust
Newmark (Louis)
Press Tools
Reliance Knitwear
Smith and Nephew
Wiggins Constr.
Interims:
Lambert Howarth
Nottingham Manufacturing

DIVIDEND & INTEREST PAYMENTS—

Aberdeen 7¾pcBds. Red. 21/2/79 3$^{15}_{16}$pc
Aberdeen Trust 4pcDb. 2pc (Feb.)
Anderson, Strathclyde Ln. 3½pc
Anglo-American Inv. Trust Pf. 8pc
Associated Newspapers 3.959p
Bolton Var. Rate Bds. Red. 9/2/83 £4.1250
Borg-Warner 45 cents
Bristol 13pc Red. 1985 6½pc
Brunswick 17½ cents
Burmah Oil Company Ln. 3½pc
Cambridge 7¾pcBds. Red. 21/2/79 3$^{15}_{16}$pc
Chase Manhattan 55 cents
Chloride Group 3.7977p. 6pcPf. 2.1pc
Cleveland 9pcBds. Red. 13/2/80 4½pc
Colgate Palmolive 25 cents
Davenport Knitwear 3.96p
Edinburgh 6¼pc 1977-79 3⅛pc
Ettrick and Lauderdale 10½pcBds. Red. 9/2/83 5¼pc
Gateshead 7¾pcBds. Red. 21/2/79 3$^{15}_{16}$pc
Glasgow 7¾pcBds. Red. 21/2/79 3$^{15}_{16}$pc
Glasgow Stockholders Trust 1p. 3½pcPf. 1.75pc
Great Yarmouth 7¾pcBds. Red. 21/2/79 3$^{15}_{16}$pc
Greater London 6¾pc 1990-92 3⅜pc
High Peak 7¾pcBds. Red. 21/2/79 3$^{15}_{16}$pc
International Bk. for Reconstruction and Development 5pc 1977-82 2½pc
Islington 9pcBds. Red. 13/2/80 4½pc
Jamaica 6pc 1977-82 3pc
Kenya 5pc 1978-82 2½pc
Lendu Rubber Estates Ord. 0.7p
Liverpool Daily Post & Echo 5pcPf. 1.75pc
Lucas Inds. 6½pcLn. 3¼pc
M and G Second General Trust Fund Income 2.8p
Macclesfield 7¾pcBds. Red. 21/2/79 3$^{15}_{16}$pc
Meirionnydd 7¾pcBds. Red. 21/2/79 3$^{15}_{16}$pc
Middlesbrough 7¾pcBds. Red. 21/2/79 3$^{15}_{16}$pc
Nottingham 6½pc Red. 1976-78 3¼pc
Nottingham Brick 4.85p
Oxford 7¾pcBds. Red. 21/2/79 3$^{15}_{16}$pc
Peeler-Hattersley 4.535p
Poole 7¾pcBds. Red. 21/2/79 3$^{15}_{16}$pc
Redditch 7¾pcBds. Red. 21/2/79 3$^{15}_{16}$pc
Reed International 2.0445p
Rembia Rubber 0.45p
Renold Ord. 6.841p
Riverview Rubber Estates 0.9136p
Scottish Metropolitan Property Db. 3½. 3$^{1}_{16}$pc (1979-84). Ln. 4½pc
Sears Holdings Ln. 3¾pc
Spelthorne 7¾pcBds. Red. 21/2/79 3$^{15}_{16}$pc
Sperry Rand 33 cents
Stanhope General Inv. 2p
Strathkelvin 7¾pcBds. Red. 21/2/79 3$^{15}_{16}$pc
Stroud 7¾pcBds. Red. 21/2/79 3$^{15}_{16}$pc
Sunderland 7¾pcBds. Red. 21/2/79 3$^{15}_{16}$pc
Thanet 9pcBds. Red. 13/2/80 4½pc
Trafford 7¾pcBds. Red. 21/2/79 3$^{15}_{16}$pc
Treasury 3¼pc 1979-81 1⅝pc. 3pc 1982 1½pc
Warrington 7¾pcBds. Red. 21/2/79 3$^{15}_{16}$pc
Wear Valley 10½pcBds. Red. 10/2/82 5¼pc
West Yorkshire 7¾pcBds. Red. 21/2/79 3$^{15}_{16}$pc
Whitecroft 9p. 5½pcPf. 1.925pc
Wilson (Ambrose) 5½pcPf. 1.925p

WEDNESDAY, AUGUST 16

COMPANY MEETINGS—

L.C.P., Metropole Hotel, Birmingham, 12.
Moss (Robert), 333, Banbury Road, Oxford, 3.30.
Negretti and Zambra, 100, Broad Street, E.C., 12.
Town and City Props., 100, Old Broad Street, E.C., 3.
Victoria Carpet, Green Street, Kidderminster, 3.

BOARD MEETINGS—

Finals:
Ewart New Northern
Garford-Lilley Inds.
Melody Mills
Regional Props.
Webb (Joseph)
Interims:
Barrow Hepburn
Britannic Assurance
British Aluminium
Dreamland Electrical Appliances
Moorside Trust
Olives Paper Mill
Stanley (A. G.)
Tiger Oats and National Milling
Tube Invs.
Woolworth

DIVIDEND & INTEREST PAYMENTS—

Adur 8¼pcBds. Red. 16/8/78 £4.2606
Cambridge 8¼pcBds. Red. 16/8/78 £4.2606
Dacorum 8¼pcBds. Red. 16/8/78 £4.2606
Daventry 8¼pcBds. Red. 16/8/78 £4.2606
East Stafford 8¼pcBds. Red. 16/8/78 £4.2606
Ellesmere Portland Neston 8¼pcBds. Red. 16/8/78 £4.2606
Great Northern Inv. Trust 1.29p
Hackney 8¼pcBds. Red. 16/8/78 £4.2606
Harrisons and Crosfield 17.4p (subject to offer)
Hinckley and Bosworth 8¼pcBds. Red. 16/8/78 £4.2606
Knowsley 8¼pcBds. Red. 16/8/78 £4.2606
Lancaster 8¼pcBds. Red. 16/8/78 £4.2606
Llanelli 8¼pcBds. Red. 16/8/78 £4.2606
Manchester 8¼pcBds. Red. 16/8/78 £4.2606
Moss (Robert) 1.05656p
North East Derbyshire 8¼pcBds. Red. 16/8/78 £4.2606
North Wiltshire 8¼pcBds. Red. 16/8/78 £4.2606
Northavon 8¼pcBds. Red. 16/8/78 £4.2606
Nuneaton 8¼pcBds. Red. 16/8/78 £4.2606
Parrish (J. T.) 3.835p
Racal Electronics 2.18p
Salford 8¼pcBds. Red. 16/8/78 £4.2606
South Shropshire 8¼pcBds. Red. 16/8/78 £4.2606
Southend-on-Sea 9¼pc Bds. Red. 1981-83 4⅝pc
Tonbridge and Malling 9¼pcBds. Red. 16/8/78 £4.2606
Wiltshire 8¼pcBds Red. 16/8/78 £4.2606
Wrekin 8¼pcBds. Red. 16/8/78 £4.2606

THURSDAY, AUGUST 17

COMPANY MEETINGS—

Allied Retailers, Strathallan Hotel, Birmingham, 12.
Carclo Engineering, Queens Hotel, Leeds, 3
Greene King, Theatre Royal, Bury St. Edmunds, Suffolk, 12.
Scottish and Newcastle Breweries, King James Hotel, Edinburgh, 12.
Symonds Engineering, Great Eastern Hotel, E.C., 11.30.

BOARD MEETINGS—

Finals:
Danks Gowerton
First Scottish American Trust
Geller (A. and J.)
Jacks (William)
Norton and Wright
Interims:
Albright and Wilson
Corah
Evode
Lex Service
Needlers
Rea Bros.
Royal Dutch Petroleum
Royal Insurance
Shell Transport and Trading
Transport Development
Woodhouse and Rixson

DIVIDEND & INTEREST PAYMENTS—

Baker Perkins 2.4p
Calderdale 11⅛pcBds. Red. 13/8/80 5$^{9}_{16}$pc
Chester 12pcBds. Red. 12/8/81 6pc
Chiltern 11⅛pcBds. Red. 13/8/80 5$^{9}_{16}$pc
Davis (Godfrey) 2.535171p
Exeter 10pcBds. Red. 15/8/79 5pc
Great Northern Telegraph Kr. 6.48
Greene, King 4.5787p
Haringey 12pcBds. Red. 12/8/81 6pc
Lanark 10pcBds. Red. 15/8/79 5pc
Langbaurgh 12pcBds. Red. 12/8/81 6pc
Pilkington Bros. 5.763p and 0.087p
Rhymney Valley 10pcBds. Red. 15/8/79 5pc
Roxburgh 11⅛pcBds. Red. 13/8/80 5$^{9}_{16}$pc
Sekong Rubber 6.39218p
South Tyneside 11⅛pcBds. Red. 13/8/80 5$^{9}_{16}$pc
Steel Bros. Compulsory conversion of the 5.5pcNon-Cum.Cnv.Red.Pf. shares or repayment at par (election for repayment not later than 4/8/78)
Vale of Glamorgan 10pcBds. Red. 15/8/79 5pc
Victoria Carpet 0.9701p
West Lothian 10pcBds. Red. 15/8/79 5pc
Westminster 10pcBds. Red. 15/8/79 5pc
Wimborne 10pcBds. Red. 15/8/79 5pc

FRIDAY, AUGUST 18

COMPANY MEETINGS—

Ariel Ind., Allen House, Leicester, 12.
English Card Clothing, George Hotel, Huddersfield, 2.30.
May and Hassell, Grand Hotel, Broad Street, Bristol, 12.
Paterson (R.), 77, Charlotte, Glasgow, 11.30.

BOARD MEETINGS—

Finals:
Gold Fields of South Africa
Investment Co.
Pifco
Stirling Knitting
Interims:
Pye Holdings
Ward Holdings

DIVIDEND & INTEREST PAYMENTS—

Ashdown Invest. Trust 1.3p
Bath and Portland 1.6p
Bett Bros. 0.767p
Braby Leslie 3.25p
Braid 0.47582p
Brent Chemicals Intnl. 2.01p
Combined Insurance of America 25 cents
Dundonian 1.1296p
Guardian Inv. Trust 4½pcDb. 2pc (1958)
Halma 0.2786p
Jokai Tea 6pcPf. 1.611pc.
LCP 2.79p
Newcastle upon Tyne 12½pcBds. Red. 16/2/81 6¼pc
Piccadilly Theatre 1.78p
Scapa 3p
Scottish and Mercantile Inv. Ord. A Non-Vtg. 1p
Standard Chartered Bank 11.6006p
Symonds Engineering 0.92045p

SATURDAY, AUGUST 19

DIVIDEND & INTEREST PAYMENTS—

Caterpillar Tractor 45 cents
Paterson (R.) 1.51p

OVERSEAS MARKETS

INTERNATIONAL BONDS

BY MARY CAMPBELL

Swing round in D-Mark sector

THE INTERNATIONAL bond markets continued to chart what to many was a perfectly amazing path last week. Despite the collapsing dollar, and increasing reserve inside the U.S. about U.S. interest rate prospects, dollar straight bonds continued upwards or held steady. Meantime sentiment in the D-Mark sector swung round completely.

After further sharp rises in prices early in the week a cloud passed across the dollar sector at the end of last week. But it awaits this week's experience to confirm which way the wind is blowing. Eurodollar interest rates, sharply down earlier, moved up marginally at the end of last week. Nonetheless, prices on average held steady on Thursday and Friday.

The big change was in the D-Mark sector. If the dollar's collapse on the foreign exchange markets did not seem to affect dollar bond prices it certainly was a big factor in pushing up demand for D-Mark bonds. On the domestic front, German investors adopted the view that the Government's financing requirement was not as bad as they had feared.

According to some sources, the Government has in the last couple of weeks sold several billion D-Marks' worth of schuldscheine and kassenobligationen which in itself will reduce pressures on the capital market during the rest of this year. One estimate is that by the end of last week the German Government needed to raise only about DM 3bn per month (gross) for the rest of this year, so successful had its recent selling programme been.

While a substantial proportion of the Government's sales will have indirectly found their way abroad, the improvement in the market did enable BHF-bank to re-schedule the DM65m issue for United Drapery Stores which it had postponed due to dreadful market conditions only a week earlier.

Another major factor in the improvement in the D-Mark sector was the increased liquidity of the German banking system. The inflow of foreign money was one factor in this. Another was structural: from the beginning of this month state governments in Germany were for the first time allowed to place idle funds with domestic banks rather than only with the Bundesbank. According to one source this resulted in a multi-billion flow of new deposits into German banks.

German bond market sources said on Friday evening that the calendar of D-Mark issues for foreign borrowers which was approved at the meeting of the Capital Market Sub-Committee on Friday afternoon made provision for between DM550m and DM730m worth of issues in the next month. This compares with just over DM500m in the month to August 11.

The first of the issues, DM150m for Norway's Statoil was launched over the week-end (for details see table). The rest of the calendar includes a DM150m to DM250m issue for Australia via Deutsche Bank scheduled for August 23-24, a DM100m to DM150m issue for the Brazilian Petrobras via Westdeutsche Landesbank scheduled for September 4 and a DM30m issue via Commerzbank for Toyo Rubber.

Commerzbank is also scheduled to launch a DM 100m issue for a European borrower on August 21-22, and Bayerische Vereinsbank to launch a DM 50m issue for a non-European borrower on August 28-29.

There may of course be issues by supranational bodies on top of this calendar, while Japanese convertibles also do not have to be scheduled via the Committee.

Two issues have already been scheduled for after the next meeting of the Capital Markets Sub-Committee on September 11. They are DM 60m for a European State guaranteed borrower on September 13 via BHF-Bank and DM 100m for a non-European borrower via Dresdner Bank on September 18.

The Y15bn Euroyen issue for the Asian Development Bank is likely to be launched later this week, market sources said on Friday. A 10-year maturity with the coupon set between 5¾ and 6 per cent is reportedly likely with Deutsche Bank and S. G. Warburg joining Daiwa as co-lead managers.

A 5¾-6 per cent coupon would be substantially lower than that necessary on a foreign bond issue in Japan.

● Robert Gibbens writes from Montreal: The Export Development Corporation, the Federal Government's export financing arm, is going ahead with its first public issue in the New York capital market next week. Pricing will probably come on Wednesday. Underwriting sources expect the yield on the $US 125m five-year note issue to be between 8½ and 8¾ per cent. It has a triple-A rating. The underwriting group is headed by Salomon Bros. and Wood Gundy.

EDC has already raised about $500m from U.S., European and Middle East investors through private placements of notes, and expects its total borrowings on world capital markets this year to be about $600m, including the latest issue in New York.

EDC has stepped up its export financing operations sharply in the past two years, as the Government realised that Canada's manufacturing industries needed to get into world markets in order to back such orders as the near-$1bn for the development construction and equipping of the big Cerro Colorado Copper Mines in Panama. Texasgulf, the big metals producer one-third owned by the Canada Development Corporation, has been doing the feasibility study on the project.

CURRENT INTERNATIONAL BOND ISSUES

Borrowers	Amount m.	Maturity	Av. life years	Coupon %	Price	Lead manager	Offer yield %
U.S. DOLLARS							
‡§Coca Cola Bottling	30	1993	—	4½	100	Blyth Eastman Dillon	6.75
††Exp. Dev. Corp. Canada	125	1983	n.a.	—	*	Salomon Bros., Wood Gundy	*
§Texas Int. Airlines	25	1993	—	7½	*	Smith Barney, Harris Upham	*
¶¶EIB	80	1990	¶	*	*	Nikko Securities	*
EIB	20	1990	¶	*	*	CSWW	*
D-MARKS							
‡Chase Manhattan	100	1993	10.75	6	99	WestLB	6.18
‡Nippon Steel (g'teed Ind. Bk. of Japan)	100	1985	7	5¾	99	Deutsche Bank	5.93
‡§Murata Manufacturing	40	1986	—	3¼	100	Bay. Vereinsbank	3.5
Mitsubishi Petrochem. (g'teed Mitsubishi Bk.)	65	1983	5	5¾	*	WestLB	*
§Fujitsu Fanuc	30	1984	—	3¼	*	Deutsche Bank	*
§Trio-Kenwood	40	1984	—	3½	*	Deutsche Bank	*
UDS	65	1983	5	5¾	99½	BHF-Bank	5.87
Statoil (g'teed Norway)	150	1988	8	6	*	Deutsche Bank	*
YEN							
‡Denmark	30bn	1988	9	6.7	99½	Daiwa Securities	n.a.
SWISS FRANCS							
‡World Bank	250	1993	n.a.	4½	100¼	Swiss Bank Corp.	4.28

* Not yet priced. ‡ Final terms. ** Placement. † Floating rate note. || Minimum. § Convertible. †† Registered with U.S. Securities and Exchange Commission. ¶ Purchase fund. ¶¶ Registered with Japanese Ministry of Finance. Note: Yields are calculated on AIBD basis.

BONDTRADE INDEX AND YIELD 1978

	August 11		August 4		High	Low
Medium term	99.12	8.96	99.06	8.97	99.24 (19/4)	98.96 (29/6)
Long term	93.15	8.72	92.91	8.75	94.07 (19/4)	92.58 (29/6)

EUROBOND TURNOVER (nominal value in $m)

	U.S. dollar bonds last week	previous week	Other bonds last week	previous week
Euroclear	1,675.1	1,384.8	288.6	254.9
Cedel	492.3	324.4	153.9	283.7

Indices

NEW YORK —DOW JONES

	Aug. 11	Aug. 10	Aug. 9	Aug. 8	Aug. 7	Aug. 4	1978 High	1978 Low	Since Compilat'n High	Since Compilat'n Low
Industrial	880.85	885.48	891.63	889.21	885.05	888.45	891.63 (9/8)	742.12 (28/2)	1051.70 (11/1/73)	41.22 (2/7/32)
H'me B'nds*	88.95	88.85	88.96	88.68	88.58	88.28	90.66 (4/1)	88.73 (11/7)	—	—
Transport	247.57	246.45	249.90	249.61	248.78	248.88	249.90 (9/8)	199.31 (9/1)	279.88 (7/2/69)	13.23 (8/7/32)
Utilities	107.27	107.41	107.48	107.98	108.09	108.15	110.98 (3/1)	102.84 (22/2)	163.32 (20/4/69)	10.58 (28/4/42)
Trading vol. 000's	33,560	39,850	48,860	34,340	33,350	37,970	—	—	—	—

* Basis of Index changed from August 24

Ind. div. yield %	Aug. 4	July 28	July 21	(Year ago approx)
	5.25	5.47	5.62	6.03

STANDARD AND POORS

	Aug. 11	Aug. 10	Aug. 9	Aug. 8	Aug. 7	Aug. 4	1978 High	1978 Low	Since Compilat'n High	Since Compilat'n Low
‡Industrials	114.39	114.57	115.55	115.03	114.46	114.96	115.55 (9/8)	95.52 (6/3)	134.64 (11/1/73)	3.52 (30/6/32)
§Composite	103.86	103.66	104.50	104.01	103.66	103.92	104.50 (9/8)	86.90 (6/3)	125.85 (11/1/63)	4.40 (1/6/32)

	Aug. 9	Aug 2	July 26	Year ago (approx.)
Ind div. yield %	4.70	4.76	4.93	4.49
Ind. P/E Ratio	9.97	9.78	9.40	10.06
Long Gov. Bond yield	8.32	8.46	8.66	7.70

N.Y.S.E. ALL COMMON

Aug. 11	Aug. 10	Aug. 9	Aug. 8	1978 High	1978 Low
58.56	58.54	58.75	58.47	58.75 (9/8)	48.37 (6/3)

Rises and Falls

	Aug. 11	Aug. 10	Aug. 9
Issues traded	1,882	1,898	1,946
Rises	863	620	1,080
Falls	614	893	532
Unchanged	405	385	334
New Highs	—	164	307
New Lows	—	5	7

MONTREAL

	Aug. 11	Aug. 10	Aug. 9	Aug. 8	1978 High	1978 Low
Industrial	199.85	199.67	200.25	199.65	200.25 (9/8)	162.90 (16/2)
Combined	207.20	206.97	207.58	207.17	207.58 (9/8)	170.62 (30/1)
TORONTO Composite	1225.5	1219.9	1221.4	1220.9	1225.5 (11/8)	998.2 (30/1)
JOHANNESBURG Gold	271.5	265.6	266.0	265.7	287.4 (1/8)	183.0 (20/4)
Industrial	261.5	260.8	258.8	257.5	261.5 (11/8)	194.9 (13/3)

	Aug. 11	Pre-vious	1978 High	1978 Low
Australia(¶)	522.36	522.04	522.36 (11/8)	441.19 (1/3)
Belgium (||)	97.98	97.54	101.16 (8/5)	90.43 (23/6)
Denmark (**)	98.87	98.74	98.87 (11/8)	94.00 (6/2)
France (††)	75.9	75.3	76.5 (3/8)	47.6 (3/2)
Germany(‡‡)	818.0	817.7	819.9 (27/7)	759.4 (17/5)
Holland (§§)	85.8	86.2	87.0 (9/8)	76.0 (4/4)
Hong Kong (¶¶)	624.22	614.38	624.22 (11/8)	383.44 (13/1)
Italy (|||)	—	63.70	64.24 (19/7)	55.45 (10/1)
Japan (a)	418.26	418.02	425.81 (19/7)	364.04 (4/10)
Singapore (b)	389.14	385.62	389.14 (11/8)	262.0 (9/1)

	Aug. 11	Pre-vious	1978 High	1978 Low
Spain (d)	—	102.45	110.78 (9/5)	87.86 (17/3)
Sweden (e)	403.88	401.04	405.08 (4/8)	325.74 (3/1)
Switzerl'd (f)	293.3	293.4	336.99 (23/6)	279.0 (26/4)

Indices and base dates (all base values 100 except NYSE All Common — 50 Standards and Poors — 10 and Toronto 300—1,000, the last named based on 1975). † Excluding bonds. ‡ 400 Industrials. § 400 Industrials, 40 Utilities, 40 Finance and 20 Transport. ¶ Sydney All Ordinary. || Belgian SE 31/12/63. ** Copenhagen SE 1/1/73. †† Paris Bourse 1961. ‡‡ Commerzbank Dec., 1953. §§ Amsterdam Industrial 1970. ¶¶ Hang Seng Bank 31/7/64. ||| Banca Commerciale Italiana 2/1/72. a Tokyo New SE 4/1/68. b Straits Times 1966. c Closed. d Madrid SE 30/12/77. e Stockholm Industrial 1/1/58. f Swiss Bank Corporation. u Unavailable.

NEW YORK

1978 High	1978 Low	Stock	Aug. 11
39	25	Abbott Labs	36¾
29	13⅞	Addressograph	28⅛
44⅛	31⅛	Aetna Life & Cas	45⅛
31⅝	22⅛	Air Products	29⅞
61⅝	45⅛	Corning Glass	60½
52⅛	42¼	CPC Int'rn'tional	50½
33⅜	24¾	Crane	30⅝
29⅞	22⅛	Crocker Nat.	29⅝
37⅞	29⅜	Crown Zellerbach	36¾
42¼	33½	Cummins Engine	38⅝
21⅛	16⅛	Curtiss Wright	16⅛
34	28¼	Johns Manville	32⅛
87¼	66	Johnson Johnson	87⅝
33⅛	24¾	Johnson Control	28½
38⅛	29¾	Joy Manufactur'g	35¼
29⅛	23⅛	K. Mar Corp	28⅛
36⅛	28	Kaiser Alumini'm	35
5	1¾	Kaiser Industries	2
56⅝	38	Revlon	56⅛
34⅜	25¼	Reynolds Metals	32⅝
62	52¼	Reynolds R. J.	59⅝
28⅛	20	Rich'son Merrell	29
36⅝	28⅞	Rockwell Inter.	34⅛
36⅛	28⅛	Rohm & Haas	35

CANADA

GERMANY

JOHANNESBURG

AUSTRALIA

PARIS

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Securities Rand U.S.$0.75 (Discount of 34.7%)

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† Bid. ‡ Asked. § Traded. ¶ New Stock.

NOTES: Overseas prices exclude $ premium. Belgian dividends are after withholding tax.

AUTHORISED UNIT TRUSTS

Framlington Unit Mgt. Ltd. (a)
5-7, Ireland Yard, EC4B 5DH. 01-248 6971

American	54.4	57.8	.....	1.20
Capital Tst.	134.4	145.8	.....	3.35
Income Tst.	124.6	134.0	.....	6.23
Int. Growth Fd.	127.4	135.4	.....	2.05
Do. Accum.	132.4	139.4	.....	2.05

Friends' Provdt. Unit Tr. Mgrs.♥
Pixham End, Dorking. 0306 5055

Friends Prov. Uts.	47.2	50.4	-0.4	3.80
Do. Accum.	59.9	65.1	-0.5	3.80

G.T. Unit Managers Ltd.♥
16, Finsbury Circus EC2M 7DD 01-628 8131

G.T. Cap. Inc.	91.9	97.6xd	+1.2	3.40
Do. Acc.	111.1	118.1	+1.4	3.40
G.T. Inc. Fd. Un.	176.0	187.2	+1.8	7.30
G.T. U.S. & Gen.	151.4	161.0	+0.1	2.20
G.T. Japan & Gen.	351.8	370.3	+12.3	0.80
♦G.T. Pens. Ex. Fd.	139.2	146.1xd	.....	4.00
G.T. Int'l. Fund	153.5	163.2	+7.5	1.10
G.T. Four Yds Fd.	58.4	60.6	.....	7.20

G. & A. Trust (a) (g)

Minster Fund Managers Ltd.
Minster Hse., Arthur St., EC4. 01-623 1050

Minster August 7	37.5	39.5	.....	5.58
Exempt July 31	97.3	101.3	.....	5.58

MLA Unit Trust Mgemnt. Ltd.
Old Queen Street, SW1H 9JG. 01-930 7333.

MLA Units	46.7	48.8	.....	3.75

Mutual Unit Trust Managers♥ (a)(g)
15, Copthall Ave., EC2R 7BU. 01-606 4803

Mutual Sec. Plus	53.4	57.2	-0.4	6.11
Mutual Inc. Tst.	73.4	78.6	-0.4	6.88
Mutual Blue Chip	46.5	50.1	.....	6.31
Mutual High Yld.	64.1	68.5	-0.3	7.94

National and Commercial
31, St. Andrew Square, Edinburgh 031-556 9151

Income Aug. 9	165.8	172.6	.....	5.39
(Accum. Units)	227.0	235.4	.....	5.39
Capt. July 26	130.8	135.6	.....	3.40

Provincial Life Inv. Co. Ltd.♥
222, Bishopsgate, E.C.2. 01-247 6533

Prolific Units	93.4	100.0	-0.8	2.34
High Income	121.8	130.5	+0.1	6.84

Prudl. Portfolio Mngrs. Ltd.♥ (a)(b)(c)
Holborn Bars, EC1N 2NH 01-405 9222

Prudential	137.5	146.0	-1.0	4.61

Quilter Management Co. Ltd.♥
The Stk. Exchange, EC2N 1HP. 01-600 4177

Quadrant Gen. Fd.	108.0	112.5	.....	5.04
Quadrant Income	126.4	130.4xd	.....	8.09

Reliance Unit Mgrs. Ltd.♥
Reliance Hse., Tunbridge Wells, Kt. 0892 22271

Opportunity Fd.	72.2	77.2	.....	4.84
Sekforde T. (Acc.)	47.3	50.6	-0.1	5.35
Sekforde T. Inc.	46.1	49.3	-0.1	5.35

Scotbits Securities Ltd.♥

Schlesinger Trust Mngrs. Ltd. (a) (z)
140, South Street, Dorking.

INSURANCE AND PROPERTY BONDS

OFFSHORE AND OVERSEAS FUNDS

CLIVE INVESTMENTS LIMITED
Royal Exchange Ave., London EC3V 3LU. Tel.: 01-283 1101.
Index Guide as at 1st August, 1978 (Base 100 at 14.1.77)

Clive Fixed Interest Capital	131.60
Clive Fixed Interest Income	117.33

CORAL INDEX: Close 514-519

INSURANCE BASE RATES

†Property Growth	10¼%
†Vanbrugh Guaranteed	8.87%

†Address shown under Insurance and Property Bond Table.

NOTES

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"Shorts" (Lives up to Five Years)

Five to Fifteen Years

Over Fifteen Years

Undated

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LOANS

Public Board and Ind.

Financial

FOREIGN BONDS & RAILS

Interest Due		Stock	Price £	Last xd	Div % Gross	Red. Yield
—		Antofagasta Rly	24	671	—	—
1J	1J	Do. 5pc Pref	49	21.5	—	—
1J	1J	Chilean Mixed	98	3.7	—	£3.10
1J	1D	German Yng. 4½pc	452	1.6	4½	—
1M	1N	Greek 7pc Ass.	54	2.5	3½	£6.60
1F	1A	Do.6pc 28 Stab. Ass.	51	[illegible]	6	£5.88
1A	1O	Do.4pc Mixed Ass.	43	3.4	4	£4.65

BONDS & RAILS—Cont.

U.S. $ & DM prices exclude inv. $ premium

AMERICANS

S.E. List Premium 54¼% (based on US$1.9228 per £) Conversion factor 0.6457 (0.6430)

CANADIANS

S.E. List Premium 54¼% (based on 2.2336) per £1

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Hire Purchase, etc.

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CHEMICALS, PLASTICS—Cont.

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CENTRAL RAND

EASTERN RAND

FAR WEST RAND

O.F.S.

FINANCE

DIAMOND AND PLATINUM

NOTES

Unless otherwise indicated, prices and net dividends are in pence and denominations are 25p. Estimated price/earnings ratios and covers are based on latest annual reports and accounts and, where possible, are updated on half-yearly figures. P/Es are calculated on the basis of net distribution; bracketed figures indicate 10 per cent. or more difference if calculated on "nil" distribution. Covers are based on "maximum" distribution. Yields are based on middle prices, are gross, adjusted to ACT of 34 per cent. and allow for value of declared distributions and rights. Securities with denominations other than sterling are quoted inclusive of the investment dollar premium.

- Δ Sterling denominated securities which include investment dollar premium.
- ● "Tap" Stock.
- * Highs and Lows marked thus have been adjusted to allow for rights issues for cash.
- † Interim since increased or resumed.
- ‡ Interim since reduced, passed or deferred.
- ‡‡ Tax-free to non-residents on application.
- ♦ Figures or report awaited.
- †† Unlisted security.
- ¤ Price at time of suspension.
- ¶ Indicated dividend after pending scrip and/or rights issue: cover relates to previous dividends or forecasts.
- ♦ Merger bid or reorganisation in progress.
- ♦ Not comparable.
- ♦ Same interim; reduced final and/or reduced earnings indicated.
- § Forecast dividend; cover on earnings updated by latest interim statement.
- ‡ Cover allows for conversion of shares not now ranking for dividends or ranking only for restricted dividend.
- ★ Cover does not allow for shares which may also rank for dividend at a future date. No P/E ratio usually provided.
- ♥ Excluding a final dividend declaration.
- ‡ Regional price.
- || No par value.

a Tax free. b Figures based on prospectus or other official estimate. c Cents. d Dividend rate paid or payable on part of capital; cover based on dividend on full capital. e Redemption yield. f Flat yield. g Assumed dividend and yield. h Assumed dividend and yield after scrip issue. j Payment from capital sources. k Kenya. m Interim higher than previous total. n Rights issue pending. q Earnings based on preliminary figures. s Dividend and yield exclude a special payment. t Indicated dividend: cover relates to previous dividend, P/E ratio based on latest annual earnings. u Forecast dividend: cover based on previous year's earnings. v Tax free up to 30p in the £. w Yield allows for currency clause. y Dividend and yield based on merger terms. z Dividend and yield include a special payment: Cover does not apply to special payment. A Net dividend and yield. B Preference dividend passed or deferred. C Canadian. E Issue price. F Dividend and yield based on prospectus or other official estimates for 1979-80. G Assumed dividend and yield after pending scrip and/or rights issue. H Dividend and yield based on prospectus or other official estimates for 1978-79. K Figures based on prospectus or other official estimates for 1978. M Dividend and yield based on prospectus or other official estimates for 1978. N Dividend and yield based on prospectus or other official estimates for 1979. P Figures based on prospectus or other official estimates for 1978-79. Q Gross. T Figures assumed. Z Dividend total to date. §§ Yield based on assumption Treasury Bill Rate stays unchanged until maturity of stock.

Abbreviations: xd ex dividend; xc ex scrip issue; xr ex rights; xa ex all; xd ex capital distribution.

"Recent Issues" and "Rights" Page 39

This service is available to every Company dealt in on Stock Exchanges throughout the United Kingdom for a fee of £400 per annum for each security

REGIONAL MARKETS

The following is a selection of London quotations of shares previously listed only in regional markets. Prices of Irish issues, most of which are not officially listed in London, are as quoted on the Irish exchange.

Albany Inv. 20p	25	......
Ash Spinning	44	......
Bertam	21	......
Bdg'wtr. Est. 50p	310	......
Clover Croft	26	......
Craig & Rose £1	500xd	......
Dyson (R. A.) A	38	+1
Ellis & McHdy	61	......
Evered	17	+½
Fife Forge	52	......
Finlay Pkg. 5p	22	......
Graig Ship. £1	125	......
Higsons Brew	77	......
I.O.M. Stm. £1	155	......
Holt (Jos.) 25p	260	−5
N'thn. Goldsmith	68	......
Pearce (C. H.)	185	......
Peel Mills	20	......
Sheffield Brick	45	......
Sheff. Refrshmt.	62	......
Sindall (Wm.)	105	......

IRISH

Conv. 9% '80/82	£93¾	+⅛
Alliance Gas	67	......
Arnott	360	......
Carroll (P.J.)	103	−2
Clondalkin	182	−3
Concrete Prods.	143	......
Helton (Hldgs.)	52xd	......
Ins. Corp.	160	......
Irish Ropes	130	......
Jacob	67	......
Sunbeam	33	......
T.M.G.	700	−10
Unidare	105xd	+1½

OPTIONS
3-month Call Rates

Industrials					
A. Brew	6½	I.C.I.	20	Tube Invest.	30
A.P. Cement	18	"Imps"	6	Unilever	35
B.S.R.	9	I.C.L.	20	Utd. Drapery	7½
Babcock	11	Inveresk	8	Vickers	15
Barclays Bank	25	KCA	3	Woolworths	5
Beecham	35	Ladbroke	17	**Property**	
Boots Drug	15	Legal & Gen.	14	Brit. Land	3¾
Bowaters	26	Lex Service	7	Cap. Counties	4½
B.A.T.	24	Lloyds Bank	22	E.P.	5
British Oxygen	6	"Lofs"	4	Intreuropean	4
Brown (J.)	26	London Brick	5	Land Secs.	16
Burton 'A'	12	Lonrho	5	MEPC	12
Cadburys	5	Lucas Inds.	25	Peachey	8
Courtaulds	10	Lyons (J.)	10	Samuel Props.	9
Debenhams	8	"Mams"	7	Town & City	1¼
Distillers	15	Mrks. & Spncr	10	**Oils**	
Dunlop	7	Midland Bank	25	Brit. Petroleum	45
Eagle Star	11	N.E.I.	12	Burmah Oil	5
E.M.I.	14	Nat. West. Bank	22	Charterhall	3
Gen. Accident	17	Do. Warrants	70	Shell	28
Gen. Electric	18	P & O Dfd.	8	Ultramar	20
Glaxo	40	Plessey	8	**Mines**	
Grand Met.	9	R.H.M.	5	Charter Cons.	12
G.U.S. 'A'	20	Rank Org. 'A'	18	Cons. Gold	14
Guardian	18	Reed Intnl.	12	Rio T. Zinc	16
G.K.N.	22	Spillers	3		
Hawker Sidd.	20	Tesco	4		
House of Fraser	12	Thorn	22		
		Trust Houses	15		

FINANCIAL TIMES

Monday August 14 1978

Japan businessmen happy with treaty

BY ROBERT WOOD

TOKYO, August 13.

JAPANESE reaction was almost totally favourable today to the Japan-China peace and friendship treaty signed on Saturday.

The business community particularly welcomed the pact.

Mr. Yoshihiro Inayama, chairman of Nippon Steel said that it was an axis for promotion of peace in the world. Dozens of big companies signed special advertisements hailing the agreement.

Most commentators pointed to the anti-hegemony clause as being the most substantial concession China has made. It has agreed that the pact should not affect the position of either contracting party over its relations with third countries.

China had tried for some time to incorporate a clause which somehow would condemn any attempts by the Soviet Union to seek hegemony in the Asian arena.

Japan had wanted to make it clear that any anti-hegemony clause was not aimed at any third country in particular. Russian has made known its vigorous opposition to the anti-hegemony clause and to the treaty in general.

By writing into the agreement that both countries are "opposed to efforts by any other country or group of countries to seek hegemony in Asia, or any other countries," Japan appears to have prevailed on this issue.

Some observers predicted that the treaty would lead to a new era in Japanese diplomacy, and the anti-hegemony concept become a pillar of Japanese foreign policy.

Apart from the anti-hegemony clause, the treaty calls in vague terms for developing peaceful relations and improving cultural ties.

Japan's exports to China, especially of industrial plant and equipment, have been soaring recently and the diplomatic agreement was expected to support further growth.

It will have an especially favourable effect on Japanese tourism, where the Chinese had maintained obstacles.

Mr. Takeo Fukuda, the Prime Minister, has traditionally leaned toward Taiwan and many pro-Taiwan Japanese legislators are members of his faction of the Liberal Democratic Party.

Mr. Fukuda had consulted them during negotiations and thus minimised their opposition. The only public protest to the treaty came from three Parliamentarians from the Right-wing Seirankai (Blue Storm Society).

Mr. Fukuda's conclusion of the Japan-China treaty is certain to strengthen his position in the Liberal Democratic Party. He faces a re-election fight in December for the presidency of the party, which automatically implies the Prime Ministership.

The treaty had been pending since 1972 when Japan and China signed an agreement normalising ties between them.

David Satter writes from Moscow: Russia condemned the treaty as a Japanese capitulation to China and added that Japan may be led to participate in China's chauvinistic foreign policy.

Tass the Soviet news agency, gave no indication if Russia, which has consistently opposed a peace treaty including an "anti hegemony" clause directed at them, would take retaliatory action against the Japanese.

Tass said that the provision in the treaty pledging both countries to resist attempts to establish hegemony has "an openly anti-Soviet character" and serves only the "selfish interests" of Peking.

Feature, Page 2
Editorial Comment, Page 8

Continued from Page 1

Credit offer to China

buyer's credit to China grow larger, syndication of the loans among banks is now expected.

Pending the working out of the details of the massive credit arrangements in trade with China, it appears that two London banks will get credit department support for schemes they have proposed for making credits of more than five years available to China, for specific purchases under the so-called "deposit" system.

This is a mechanism by which the banks place deposits with the Bank of China while payments to the exporting company fall due.

Vauxhall talks resume in bid to end dispute

BY NICK GARNETT AND ARTHUR SMITH

NEGOTIATIONS RESUME in London today to end the dispute at Vauxhall's Ellesmere Port plant, Merseyside, which threatens to dislocate production throughout the company's factories.

The Vauxhall plant will not reopen this morning after its three-week holiday shutdown because of a strike by 3,000 Transport and General Workers' Union assembly workers, *supporting a dispute* involving 100 drivers.

Another 5,000 workers, members of the Amalgamated Union of Engineering Workers, mainly producing components of the plant, are being laid off from this morning.

The plant produces Vivas, Chevettes and a wide range of engines, gearboxes and axles for the company's car and light-commercial plant at Luton and for its Dunstable heavy truck factory.

The drivers have been claiming extra productivity payments and a shorter working week. Today's talks will centre on union proposals to pay the drivers special meal allowances as well as attempts to improve the company's plan to alter the drivers' hours in accordance with EEC regulations.

Meanwhile, unofficial leaders of BL Cars' 14,000 craft workers are today urging a one-day stoppage in pursuit of improved differentials and separate bargaining rights.

Today's response to the strike call might determine whether toolmakers are prepared to take joint action with the craft workers to advance their common aim. Mr. Roy Fraser, chairman of the unofficial toolmakers' committee, said last night.

Leaders of the toolmakers at BL Cars, whose four-week strike last year brought the state-owned corporation to the brink of financial collapse, meet on Wednesday. Mr. Fraser has declared that the failure of management to discuss their demands is forcing a new confrontation. A meeting of 1,700 toolmakers has authorised the committee to act as it considers necessary.

Common to the grievances of the skilled men is frustration at the impact upon differentials of several years of rigorous pay restraint. Management hopes of averting damaging disputes, which would throw BL back into crisis, are pinned upon rapid pay reforms.

Detailed negotiations on a new *incentive scheme, which might* yield workers up to £15 a week, will continue this week. The unions may demand a ballot of the workforce.

Discussions are also advanced on introducing a new grading structure to give toolmakers and other skilled workers the improved differentials they demand.

The skilled workers' militancy might be undermined by developments at Longbridge, Birmingham, BL Cars' biggest plant, with 25,000 workers. Stewards will report to management today. They have gained overwhelming support for radical changes in working practices in return for immediate pay awards of about £13 a week.

Stewards demand that wages at Longbridge, one of the lower-*paid plants, should be raised* immediately to the level of the highest, to secure agreement on greater mobility and flexibility in use of labour.

BL wants to introduce a new "team work concept" of production, based on practice at Fiat in Italy. That is seen as the first step to raising productivity to levels that will justify investment in the planned £280m Mini replacement programme.

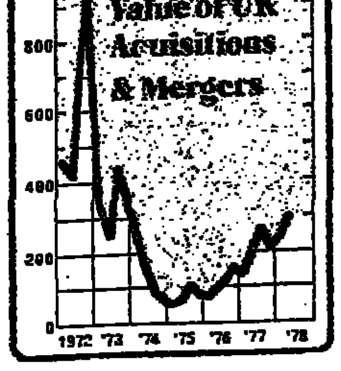
● Mr. Fraser last night raised the prospect of co-ordinated industrial action with the toolmakers at Chrysler and Vauxhall. He said such action had been discussed in Coventry at the weekend by the Engineering Craft Committee, an unofficial body set up after the Leyland toolmakers' strike, to link skilled workers throughout the industry.

THE LEX COLUMN

Forecasting under a legal cloud

The Take-over Panel is alert to three well-publicised cases of missed profit forecasts that share a common character. The forecasts arose out of Lonrho's bid for Dunford and Elliott, out of Eva Industries' bid for Stockfis, and Fruehauf International's bid for Crane Fruehauf. In each case a forecast made by the offeree company proved completely inaccurate. In each case the "actual result" was that announced by disgruntled new owners. In each case there is the possibility that the new owners will now seek redress in court.

The Panel does not feel that there has been a general deterioration in the quality of forecasts made in bid situations. It is not, in fact, continuing the detailed monitoring of forecasts and their outcomes which it undertook in the early seventies. But it is almost certain that the Panel will be drawing public conclusions from these recent cases and that some of these conclusions will focus, yet again, on the printed assumptions that underlie every profit forecast.



Better prospects

Recent howlers notwithstanding there is a strong case for continuing to encourage companies to make profit forecasts when they are bid for. Bids tend to arrive when the offeree's recent record is uninspiring. If its prospects are better than this recent record it is important that the share price should be allowed to reflect this. Clearly a forecast made under such imposed circumstances is likely to be less reliable than one made at a moment chosen by management—at the time of a new issue, for example, or at a moment of confidence during the business year.

It is significant that in the U.S., where the information released by companies is controlled under Securities law, there is a move afoot in favour of the profit forecast. Till six years ago profit forecasts were sternly prohibited over there. Now the SEC has published guidelines showing how a forecast and its underlying assumptions may be presented. These guidelines are still not law, however, and U.S. managements are still extremely wary of publishing forecasts. They fear that without a "safe harbour clause" they will be sued by shareholders for forecasts that prove erroneous.

It is an irony that as the SEC considers ways of promoting the profit forecast in the U.S., the conditions under which British companies and their advisers play this game are becoming steadily more rigorous. The refinement of the Take-over Code has affected profit forecasting in general. For example, it is due to the code that profit forecasts made at the time of new issues now have to be endorsed by accountants and financial advisers — the Stock Exchange has taken its cue from the panel. Thanks again to the Panel it is more risky nowadays for a company chairman to *make an off-the-cuff* forecast during the business year: if he subsequently becomes embroiled in a take-over he now has to sustain or modify that forecast with the endorsement of his professional advisers.

American fear

The Tremletts case of 1975-1976 demonstrated that professional advisers could be legally vulnerable to a disappointed bidder. The recent examples of missed forecasts have re-introduced merchant banks and auditors to the American fear of litigation. They should, on the face of it, be less vulnerable than the managements they advise, [...] generally assume full res[...] bility for profit forecasts, insurance policies against [...] ages arising out of profess[...] negligence can make an a[...] or an accountant meatier than his former client.

Legal action in the tak[...] arena is not something [...] deplored. Where a foreca[...] *been based on outright li[...]* on negligent book-keeping auditing such action is [...] the appropriate remedy. [...] problem is that excessive of litigation will ten[...] repress the making of for[...] rather than encourage the ing of good helpful ones. [...] the very least it will enco[...] managements to surround forecasts with asbestos bla[...] of vague and imponde[...] assumptions.

If the law must look [...] cases of overt negligenc[...] fraud, it is only the [...] over Panel which [...] improve the standard [...] profit forecasts wi[...] discouraging companies [...] making them. The key [...] helpful forecast is a helpf[...] of underlying assumptions. [...] code already gives quite det[...] guidance on the assump[...] that should underly a [...] forecast but the response o[...] City to these suggestions [...] been poor. The Panel [...] make its point more firmly selected one of the recent [...] casting errors and lo[...] deeply into the way the for[...] was made and at the inv[...] ment of City advisers. [...] necessary, the Panel sh[...] enlist outside help—say a [...] of accountants—in analysin[...] case. It should publish [...] result.

Bold type

Improved assumptions [...] help the professional inve[...] assess a forecast. For the [...] professional majority the [...] should encourage compani[...] indulge in less spu[...] accuracy in presenting [...] profit forecasts. A figure [...] to three places of decimal [...] bold type has an aura [...] established truth about [...] however sweeping the un[...] lying assumptions (in s[...] print at the back of the b[...] may be. A forecast expre[...] as a likely range of profit le[...] a more honest impression [...] the guess-work that has [...] into it.

Figures expected to show end of decline in inflation

BY PETER RIDDELL, ECONOMICS CORRESPONDENT

OFFICIAL CONFIRMATION that the year-long decline in the annual rate of retail price inflation has come to an end for the time being should be provided later this week. But any acceleration in the rate in the next few months is expected to be very slight.

The retail price index for mid-July, due to be published on Friday, is expected to show a small rise in the 12-month rate compared with the increase of 7.4 per cent reported for the period to mid-June.

It would be the first increase for a year. There was a 0.1 per cent monthly rise in July 1977. Recent monthly increases have been higher than this, and the July figure will this year be affected by the recent rise in the mortgage rate.

Mr. Roy Hattersley, the Prices Secretary, has already said that the 12-month rate is likely to fluctuate from month to month around a level of about 8 per cent for the rest of this year.

Some City analysts believe that the 12-month rate will return to double figures early next year, but several commentators have recently become more optimistic about the prospects for next year. Some have even forecast a continuing single-figure rate in view of the recent encouraging trend in wholesale prices.

The retail price index is one of a batch of economic indicators due to be published this week. The list also includes the trade figures and retail sales and industrial production indices (due today), the wages and earnings indices and cyclical indicators (expected on Wednesday); money supply and consumers' spending estimates (Thursday); and the retail price index and Gross Domestic Product estimate on Friday.

These indicators are expected by most City analysts to reinforce, rather than to undermine, the recently increased confidence in financial markets about prospects for the economy.

There will be particular market interest in the trade figures, which have proved extremely difficult to predict recently in view of the sharp month-to-month variations.

In June there was a current account surplus of £14m. Most City analysts seem to be expecting either a rough balance or a small surplus in July.

The money supply figures have been made more difficult to predict by the ambiguous character of the banking statistics published last Tuesday.

The general view is that sterling M3 (the broadly defined money supply including cash and current and seven-day bank deposits) will show a rise of about 1 per cent, possibly slightly less, in the month to mid-July.

Retail sales figures for July and the June industrial production index are generally expected to confirm the upturn in the level of economic activity. Industrial output, in particular, may show a recovery following the relatively depressed May figures.

Aerospace research costs cause concern

BY MICHAEL DONNE, AEROSPACE CORRESPONDENT

CONCERN is being expressed at the way in which the Government is seeking to pass on to the nationalised British Aerospace the financial responsibility for civil aircraft research, even where this is conducted by other bodies such as the Royal Aircraft Establishment at Farnborough.

British Aerospace accepts that research directly applicable to specific aircraft programmes, such as the 146 feeder-liner, could and should be borne by funds allocated for such projects.

But it feels it is unreasonable for the Government to expect it also to pick up the bill for "pure" research, not directly related to specific ventures but intended to keep the UK in the forefront of civil aviation progress.

The nationalised body says that in the U.S. and Western Europe, pure research, for example into new materials, new methods of aircraft construction, new wing shapes and new types of aircraft controls, is financed by Government bodies.

In the UK, out of £40m spent annually on pure research, £15m is allocated to aerospace as a whole, of which £5m goes on civil aircraft research, including £2m to £3m at the Royal Aircraft Establishment.

The Government's argument, through the Department of Industry, is that the Aircraft and Shipbuilding Industries Nationalisation Act places the onus for promoting civil aircraft research on British Aerospace.

British Aerospace says that already it is so circumscribed under the Act as to what it can or cannot do with its money, that this kind of pure research can be financed only out of profits, which last year amounted to only £29m out of a turnover of £860m.

Weather

UK TODAY

MAINLY DRY, sunny periods.

London, S.E. England, E. Anglia
Cloudy with occasional rain, sunny intervals developing. Max. 22C-24C (72F-75F).

Cent., E. England, Midlands
Cloudy, sunny intervals later. Max. 22C-24C (72F-75F).

S.W. England, S. Wales, Channel Isles
Drizzle in places, becoming brighter in sheltered places, more rain later. Max. 22C (72F).

N. Wales, N.W., N.E. England, Isle of Man
Cloudy. Outbreaks of rain. Max. 17C-19C (63F-66F).

Borders, Edinburgh, Dundee, Aberdeen, N.E. Scotland, Orkney, Shetlands
Rain, becoming brighter with scattered showers. Max. 15C-17C (59F-63F).

S.W., N.W. Scotland, Glasgow, Cent. Highlands, Argyll, N. Ireland
Showers, rain later. Max. 16C-18C (61F-64F).

Outlook: Changeable, cool.

BUSINESS CENTRES

		Y'day Midday °C	°F			Y'day Midday °C	°F
Amsterdm	F	18	64	Madrid	S	31	88
Athens	S	28	82	Manchestr	S	19	66
Bahrain	S	37	99	Melbourne	C	9	48
Barcelona	S	25	77	Mexico C.	S	23	74
Beirut	S	29	84	Milan	C	24	75
Belfast	R	13	55	Montreal	S	24	75
Belgrade	C	21	70	Moscow	F	18	64
Berlin	C	19	66	Munich	F	17	63
Birmnghm	F	19	66	Newcastle	F	18	64
Bristol	F	17	63	New Delhi	C	26	79
Brussels	F	18	64	New York	C	23	74
Budapest	F	20	68	Oslo	S	19	66
B. Aires	S	9	48	Paris	F	20	68
Cairo	S	31	88	Perth	F	12	54
Cardiff	F	17	63	Prague	C	16	61
Chicago	S	23	73	Reykjavik	C	13	55
Cologne	C	18	64	Rio de J'o	C	24	75
Copnhagn	F	19	66	Rome	S	26	79
Dublin	R	15	59	Singapore	S	30	87
Edinburg	C	16	61	Stockholm	S	17	63
Frankfurt	C	17	63	Strasbrg	R	14	57
Geneva	C	20	68	Sydney	F	13	55
Glasgow	F	16	61	Tehran	S	33	92
Helsinki	R	13	55	Tel Aviv	F	29	84
H. Kong	S	30	87	Tokyo	S	33	91
Jo'burg	S	19	66	Toronto	C	28	82
Lisbon	S	30	86	Vienna	F	20	68
London	F	22	72	Warsaw	F	17	63
Luxembrg	C	13	55	Zurich	C	17	63

HOLIDAY RESORTS

Ajaccio	S	24	75	Jersey	F	17	63
Algiers	S	30	86	Las Plmas	S	25	77
Biarritz	S	22	72	Locarno	F	18	64
Blackpool	S	18	64	Majorca	S	28	82
Bordeaux	F	24	75	Malaga	S	29	84
Boulogne	S	17	63	Malta	S	28	82
Casablnca	S	25	77	Nairobi	C	20	68
Cape Tn.	S	18	64	Naples	F	25	77
Corfu	S	28	82	Nice	C	23	73
Dubrovnik	S	25	77	Nicosia	S	28	82
Faro	S	30	86	Oporto	S	22	72
Florence	F	25	77	Rhodes	S	27	81
Funchal	S	24	75	Salzburg	C	16	61
Gibraltar	S	27	81	Tangier	S	30	86
Guernsey	C	16	61	Tenerife	F	20	68
Innsbruck	C	17	63	Tunis	F	27	81
Inverness	F	17	63	Valencia	S	29	84
Is. of Man	R	14	57	Venice	C	21	70
Istanbul	F	23	73				

S—Sunny. F—Fair. C—Cloudy. R—Rain. H—Hail.

Public sector may be given temporary accounts system

BY JOHN LLOYD

AN ACCOUNTING standard, introduced in January, is likely to enforce some measure of uniformity on the accounts of nationalised industries, which have been the target of criticism for their widely differing methods of calculating depreciation.

However, the Government may itself set temporary inflation accounting standards for the public sector if the proposals of the Inflation Accounting Steering Group (Morpeth Group) on inflation accounting are delayed much longer.

Mr. Robert Sheldon, Financial Secretary to the Treasury, told the Commons last week: "We cannot live long with the present state of affairs." He conceded that the criticism of the widely varying accounting procedures in state industries was justified.

The accounting profession is sceptical of the complaints made by the chairmen of the nationalised industries in a letter to Mr. Denis Healey, the Chancellor, last week, that the lack of uniformity was due to the absence of a commonly accepted guideline on inflation accounting.

Mr. Robert Willott, technical director of the Institute of Chartered Accountants, said that the accounting standard on depreciation (SSAP12) had come into force in January. While it did not cover the results of companies reporting for financial years spanning 1977-78, it had been available as a guideline if nationalised industries wished to use it.

The standard specifies that where assets are depreciated on a historic cost basis, any sum set aside for replacement of assets should be clearly marked off from the historic cost depreciation, and not related to it.

There is still debate within the profession on whether or not this extra sum should be a charge against profits.

While the nationalised industries' chairmen have not yet had a response from the Treasury to their plea for guidelines, it is known that the Government is in some difficulties over what standards should apply.

A uniform depreciation procedure of any type would embarrassingly emphasise the losses of some companies, or the high profits of others.

Nigeria loan tangle nearer solution

BY MARY CAMPBELL

MANAGERS OF the proposed $1bn "jumbo" loan to Nigeria are now hopeful that the international banking tangle which has arisen over the loan will be sorted out this week.

Progress on the loan has been virtually at a halt for a fortnight. It was announced just over a month ago, with half of the total underwritten by the six lead managers.

In the first two weeks after the announcement, commitments for a further $175m to $200m were arranged, mainly from six other banks, but since then only one more has come in.

In trying to arrange the loan, managers have come up against two major problems.

One concerns a commitment by a consortium of German banks, led by the Deutsche Bank, to provide DM 750m worth of project finance for a steel plant at Warri in which German exporters have been heavily involved.

The other is a more general problem of commitments by banks to support customers tendering for projects in Nigeria.

The German banks' commitment meant that the bulk of these did not want to use up lending capacity by participating in the loan. According to the loan managers, it also provided a precedent of project financing which has discouraged other banks from participating in the "jumbo" loan, which is not directly tied to individual projects.

It was felt that if the German banks were staying out of the "jumbo" to reserve lending capacity to support their German customers' exports to Nigeria, then Japanese banks and banks from other countries might well feel they should do the same.

The more general commitment of international banks to support their customers should now be less of a problem than two weeks ago.

According to the jumbo managers, Nigeria has now made it clear that it is planning to finance all projects by untied borrowing.

German banking sources explain that the contract for the Warri project, signed late last year, originally committed the Nigerians to paying cash, and has since been re-negotiated so that the bulk of the foreign currency costs would be covered by borrowing from German banks and a DM 1.2bn loan from the German export credit agency.

What the "jumbo" managers and reportedly the Nigerians want is that the DM750m German bank credit should be added into the "jumbo," pushing the total well over $1bn.

The German banks would, it is proposed, be given a letter from the Nigerians guaranteeing that the foreign currency for the Warri project would be made available as and when necessary.

An answer from the German banks is expected at the end of this week. Nigeria's prospects currently look much less worrying than a couple of months ago.

As of early August, total external assets of the Central Bank of Nigeria (which holds over 90 per cent of external reserves) were approximately N1.3bn ($2.09bn), down from around the N1.5bn mark at the end of June and N1.665bn at the end of May.

Although the decline in reserves has continued throughout the year, there has been no further dramatic drop like that recorded between April and May, when the bank's external assets fell from N2.167bn to N1.664bn in one month.

Expenditure of foreign currency was even greater in the first five months than these figures would suggest, since it was during this time that the country was completely drawing down its first $1bn eurocurrency loan.

However, rising oil production and import curbs introduced in last April's Budget should bring about a significant amelioration of Nigeria's balance of payments problems in the next few months, and the fall in reserves may now be nearing a halt.

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